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To

ALFRED L. LOOMIS, M.D.,

As a token of high estimation of the value of his clinical instruction, this book is dedicated by

The Author.

PREFACE.

THIS book is designed as an aid to the study and practice of medicine. It has been prepared almost exclusively from a clinical stand-point. The aim has been to give an outline of symptomatology which represents the views of the majority of authorities. Syphilis and skin diseases, for obvious reasons, have been omitted.

Many remedies have been suggested, under the head of treatment, but it must not be inferred that each one has been used with an equal degree of success. Those mentioned, however, have yielded such results, apparently at least, as entitle them to consideration.

Prescriptions have been selected which call for combinations of drugs that have been found serviceable in meeting special indications.

The material presented has been derived largely from recent medical works, and the author acknowledges his indebtedness to the following writers: Flint, Loomis, Delafield, Clark, Bristowe, Bartholow, Ingals, Roberts, writers in Reynolds' System of Medicine, Miller, Janeway, Sands, Thomas, Cohen, Hartshorne, Jacobi, writers in Ziemssen's Cyclopædia, Smith, Wilson, Aitkin, Frerichs, Wagner, Rosenthal, Seguin, Hamilton, Hammond. Many items have been obtained from medical journals. In the preparation of this book I have received very valuable assistance from Mr. Isidor Furst.

WESLEY M. CARPENTER.

NEW YORK, 123 East 25th Street, November, 1882.

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The interrogation (?) point signifies doubt, question not definitely settled, or is under investigation.
The parentheses ( ) include words of suggestion, explanation, caution, etc.

ABSCESS, RETRO-PHARYNGEAL.

Definition.—An accumulation of pus in the submucous connective tissue posterior to the pharyngeal wall.

Etiology.—May occur as a complication or sequel of the acute specific fevers; pyæmia; disease (caries) of the cervical vertebræ; suppuration in the bronchial glands and deep cervical lymphatics; inflammation of the loose connective tissue under the pharyngeal mucous membrane.

Symptoms.—Chill, high fever, sweats, sleeplessness, restlessness; convulsions (in infants). If from caries of vertebræ, pharyngeal obstruction, pain in moving head, fixity of head, rigidity of cervical muscles; cervico-occipital neuralgia. Difficult deglutition, dyspnœa. Finger passed over the base of the tongue, or inspection with or without the mirror, *may detect* the swelling. Neck swollen; fluctuation *under the angle* of the jaw. The abscess may discharg *spontaneously into* the lower pharynx or externally, for

ing a fistula. Death may ensue from asphyxia (occlusion of the larynx by the swelling or by the escaped pus), secondary disease of the air-passages, or thrombosis of the the transverse sinus, jugular vein, or carotid artery.

Treatment.—Early evacuation of the pus. Good nourishment and a liberal use of tonics and stimulants.

ADDISON'S DISEASE.

Synonyms.—Melasma Addisonii; bronzed skin disease.

Definition.—A disease characterized by anæmia and a peculiar discoloration of the skin.

Etiology.—Obscure. Disease of the supra-renal capsules (not always present). Caries of neighboring vertebræ (?). Occurs more frequently in males than in females. Is rare under ten or over fifty years of age.

Symptoms.—Gradually increasing debility unexplained by discoverable disease; anæmic murmurs in the neck and over base of the heart; feeble heart's action; tendency to faintness; sometimes prolonged attacks of syncope; palpitation on exertion; pain in the epigastrium or loins; irritability of the stomach, with nausea, retching, and vomiting; constipation; sometimes diarrhœa. Gradual bronzing of the skin, first recognized in the face, neck, and hands; the mucous membranes are also frequently discolored; affects the skin in the groins, axillæ, about the umbilicus, nipples, and genitals; the tint may vary from a light-yellow to almost black; the stains may shade off gradually or occur in well-defined patches. Loss of flesh is not a marked symptom, even though the debility is extreme. The mind may remain clear to the last, or the patient may become drowsy or semi-comatose; death from gradual asthenia.

Differential Diagnosis.—From the staining due to the internal use of silver nitrate; from jaundice; from (phytosis) pityriasis versicolor; from chloasma, from the discoloration remaining after some syphilitic eruptions.

Treatment.—Has no reference to a cure; improve the general health and hygiene; rest; nutritious diet; tonics—*quinia, iron, strychnia,* cod-liver oil; general faradization *and galvanization;* relief of symptoms.

ALCOHOLISM.

A. Delirium Tremens.

Synonym.—Mania à potu.

Definition.—A delirium with trembling occurring in the course of chronic alcoholism.

Etiology.—Excessive indulgence in alcoholic drinks; sudden withdrawal of the accustomed stimulant.

Symptoms.—Absence of sleep; mental confusion; hallucinations (of vision, perhaps of hearing, usually disagreeable, may be pleasant); sometimes violent mania; creeping sensations; tremors (especially of the tongue); profuse perspiration; gastro-intestinal disorders; loss of appetite; thirst; nausea, etc.

B. Chronic Alcoholism.

Synonym.—Dipsomania.

Definition.—A condition due to long-continued indulgence in alcoholic drinks (usually large quantities).

Etiology.—Is implied in the definition.

Symptoms.—Restlessness, culminating in muscular tremors; insomnia, or restless sleep disturbed by horrible dreams; headache and sudden attacks of vertigo; sparks and flashes before the eyes (photopsia); muscæ volitantes; tinnitus; mental disturbances; delusions; bloated appearance, etc.; gastro-intestinal disorders; organic visceral liver, kidneys, etc.) changes and degenerations. In advanced cases, dementia; sensory paralysis in various parts; extreme muscular trembling; epileptiform attacks; coma.

Complications.—Cirrhosis of the liver; fatty liver; pachymeningitis; epilepsy; gastritis; pyrosis; dyspepsia; pneumonia (insidious in its approach and liable to invade the upper lobes), etc.

Differential Diagnosis.—*Delirium tremens*, from acute mania; from meningitis. *Chronic alcoholism*, from general paralysis of the insane; from paralysis agitans; from lead poisoning; from locomotor ataxia; from softening of the brain and cord; from epilepsy; from pachymeningitis; from senile dementia; from hysteria; from atonic dyspepsia.

Treatment.—*Delirium Tremens:* Some eminent authorities rely upon seclusion and nourishment, with strict observance of ordinary hygienic rules. Procure sleep by

chloral hydrate, opium, inhalation of chloroform, potassium or sodium bromide, or hyoscyamine. Physical exercise (walking) until the patient sleeps. Nutritious, easily digested alimentation (very important). The judgment of the physician and the nature of the case must decide whether alcoholic stimulants are required; in convalescence alcoholics should be absolutely interdicted. Capsicum in full doses; digitalis if there be tendency to cardiac failure; tartar emetic in nauseating doses (may be advantageously combined with opium), in sthenic cases with wild delirium. Teaspoonful doses of the tincture of digitalis every two hours have induced sleep in many cases, and have not been attended by unfavorable effects incident to the use of this drug; half-ounce doses of the infusion once in two or three hours may serve equally well.

Chronic Alcoholism: Abstinence from all kinds of alcoholics; careful alimentation; tonics—quinia, tincture of nux vomica, oxide of zinc; potassium or sodium bromide to procure sleep. In advanced cases, Fowler's solution, gtt. ij. t. i. d.; compound syrup of the hypophosphites; lactophosphate of lime; cod-liver oil; minute doses of strychnia.

C. Delirium Ebriosum.

Prominent and characteristic symptom: acute mania; patient violent, and may require powerful efforts for restraint. The face is flushed and the head hot, the eyes injected and the carotids throbbing. The delirium may be less intense and hilarious in some cases.

Treatment.—Venesection (if not especially contra-indicated by some other condition), cold to the head, active catharsis.

ANÆMIA.

Synonyms.—Oligæmia; oligocythæmia; spanæmia; hydræmia.

Definition.—A diminution of the quantity of the blood or of the amount of certain constituents of the blood necessary for nutrition (red blood-corpuscles and albumen). It may be acute or chronic. A form has been described which bears the name "pernicious."

Etiology.—Acute, or true anæmia, a condition in which the quantity of the blood, or the contents of the blood-vessels, is reduced, occurs for only a very short time, and ma

be produced by abundant losses of blood, as after accidental wounds, large surgical operations, or in childbed, etc.

Chronic anæmia may be due to insufficient food; impaired digestion and assimilation; over-exertion and fatigue; prolonged high temperature; sexual excesses; childbearing in rapid succession; metrorrhagia; prolonged lactation; small hemorrhages repeated; various diseases which interfere with nutrition.

Symptoms.—*Of the acute:* Pallor of the skin and visible mucous membranes; relaxation of muscles and incapacity for active exercise; weakened impulse of the heart; venous murmurs; sometimes cramps in the cutaneous muscles; convulsions may occur; tendency to snycope; increased frequency of respiration; sense of suffocation; eyes sunken; darkened vision; hearing usually abnormally acute; common sensibility lessened; pulse increased in frequency, perhaps absent at the wrist, but blood-pressure diminished (pulse soft); temperature lowered; surface and extremities cold; thirst; nausea and vomiting; occasionally difficulty of swallowing; usually constipation. These phenomena vary with the quantity of blood lost, according to the suddenness with which the loss occurs, individual peculiarities, preceding condition of health, etc.

Of the chronic: General paleness of the skin and of the mucous membranes; lassitude; cerulean eye; wasting; surface temperature below normal; cardiac force and circulation lowered; hemorrhagic tendency; impaired digestion; capricious appetite; constipation; diminished sexual power; amenorrhœa or menorrhagia; œdema; hyperæsthesia; hysterical and epileptiform attacks; neuralgias in various parts of the body; a sense of fatigue out of proportion to the labor performed, either mental or physical; depression of spirits; rapid pulse; palpitation; patients are quite commonly apprehensive that they are suffering from some grave affection.

Physical Signs.—Anæmic murmur over the base of the heart, over the carotids, over the subclavian arteries, the aorta, and the pulmonary; venous hum in the neck.

Complications.—Œdema of the lungs; hypostatic pneumonia; thromboses; neuralgia.

Differential Diagnosis.—From pernicious anæmia; *from leucocythæmia;* from diseases accompanied by anæmia *as a symptom.*

Treatment.—For the *acute*, hypodermic injections of brandy (ʒ ss.–i.) or ether (♏ xx.–xl.) may be of the greatest service. Liquid nourishment in small quantities frequently repeated. Artificial heat. Transfusion. For the *chronic*, if possible, remove the cause. Regulate the digestive apparatus if necessary; generous diet, aided by stomachics.

Beef-juice and milk; injection of defibrinated blood; wine, especially Burgundy; cod-liver oil or malt extract. Some of the preparations of iron, especially saccharated iron and manganese; or dried sulphate of iron and manganese, which may be combined with nux vomica, gentian, or calumba. Phosphate of lime, or compound syrup of the hypophosphites. If the hemorrhagic tendency co-exists, a combination of ergot or digitalis with quinia is useful. Intravenous injection of milk has been practised with some success. Moderate exercise, good hygiene, out-door life, sea-bathing, etc.

PRESCRIPTIONS.

℞ Tinct. ferri chloridi.... fl. ʒ iij.
Potass. chlorat..... ʒ i.
Sol. strychn. sulph. (gr. i. in fl. ℥ i.)..... fl. ʒ ij.
Syrup. simpl..... fl. ʒ iv.
Aquæ..... q. s. ad fl ℥ iv.

M. S. Two teaspoonfuls three times daily. Tonic.

℞ Tinct. ferri chloridi.... fl. ʒ iij.
Acid. acet. dil..... fl. ℥ ss.
Liq. ammon. acetat.. fl. ℥ iiiss.
Syr. simplicis..... fl. ℥ iss.
Strychn. sulph..... gr. ss.
Aquæ..... ad fl. ℥ viij.

M. S. Tablespoonful after each meal.

℞ Hydrarg. chlor. corros. gr. i.-ij.
Liq. arsen. chlor..... fl. ʒ i.
Tinct. ferri chloridi, Acid. hydrochlor. dil. āā fl ʒ iv.
Syr. simplicis..... fl. ℥ iij.
Aquæ..... ad fl. ℥ vi.

M. S. Two teaspoonfuls in a wine-glassful of water after each meal. Make an interval at the end of every twelve or fourteen days.

℞ Quiniæ sulph..... ʒ i.
Ferri redacti..... ʒ iss.
Acid. arseniosi, Strychniæ..... āā gr. iij.
Confect. rosæ..... q. s.

M. Div. in pil. No. lx. S. One three times daily.

ANÆMIA, CEREBRAL.

Definition.—A diminished quantity of blood in the brain. The anæmia may be partial or general. The latter form only is considered here (and chiefly because it has a place in nosology).

Etiology.—General anæmia; enfeebled cardiac action; *obstruction or compression* of the main arteries of the brain;

intracranial tumors, hemorrhages, or fractured skull; vasomotor disturbances; violent emotion; cerebral concussion and shock; prolonged and depressing moral causes; exhaustion following various diseases, as puerperal diseases, dysentery, fevers, etc., or prolonged lactation, or chlorosis, cachexiæ, etc. The application of electricity to the cervical vertebræ or back, or cervical sympathetic, etc. Toxic doses of certain drugs, as belladonna, morphine, chloroform, ergotin, etc.

Symptoms.—*Acute or sudden form :* Deadly pallor; dilated pupils; features relaxed; respiration noisy and feeble; feeble cardiac action; small pulse; vertigo; nausea; cold sweat; tinnitus; dimmed vision; syncope; general convulsion.

Chronic or slow form : Impaired vision and photophobia, flashes of light; impaired hearing and tinnitus; mental confusion, hallucinations, or maniacal excitement; muscular movements excited or feeble, trembling, inco-ordinate; neuralgic pains, numbness, tingling, or anæsthesia; vertigo; frequent headache; exertion causes fatigue or syncope, often with nausea; dread of mental work; cardiac action feeble, rapid on the least movement. Exaggerated sensibility to external impressions. Skin and mucous membranes pale; appetite poor; sleep disturbed; temporary redness of the face, flashes of heat, and increased vigor of heart's action.

Hydrencephalic form (in children exhausted by wasting diseases): Surface cool; skin pale; pulse quick and weak; eyes half closed, sunken, surrounded by dark areolæ; pupils dilated and scarcely react; anæsthesia of the conjunctiva; fontanelle concave; fretfulness; hoarse voice; dry hacking cough; respiration noisy and feeble; somnolence; irritable stomach; relaxed bowels.

Differential Diagnosis.—From cerebral hyperæmia; from acute hydrocephalus; from acute simple meningitis.

Treatment.—For syncope, recumbency; dashing cold water in the face; ammonia vapor to the nostrils; compression of the abdominal aorta and the arteries of the upper limbs; alcoholic stimulants; hypodermic injection of brandy or whiskey; intravenous injection of ammonia; transfusion. In the chronic form, the cause hould be removed; iron and the phosphates; strychnia; chalybeate tonics; arsenic. In maniacal delirium, morphia hypodermically, which may be

combined with atropia or duboisia if great motor excitement coexists. Warm baths. Hydrate of chloral in convulsions. Artificial warmth to the whole body in acute cases. If due to poisonous doses of drugs, the indications are apparent.

ANÆMIA, PERNICIOUS.

Synonyms.—Essential anæmia; malignant anæmia; idiopathic fatal anæmia; anæmatosis; myelogenic pseudo-leucocythæmia.

Definition.—A condition in which anæmia is the chief, constant, and determinable pathological change. Its right to be considered as an independent affection has been strongly doubted.

Etiology.—Obscure. It is probably a secondary condition, but the primary morbid changes have not been determined. It occurs usually in women from fifteen to forty. In a certain proportion of cases, it is associated with pregnancy.

Symptoms.—It is characterized by slowly progressive impairment of muscular power and all the vital functions. The progressive character of the affection and the gravity of the symptoms seen in simple chronic anæmia constitute its leading features.

Differential Diagnosis.—From benign anæmia; from chlorosis; from albuminuria; from leucocythæmia; from Addison's disease; from anæmia symptomatic of local disease.

Treatment.—The hope of material benefit from treatment is exceedingly slight. Transfusion of blood has been unsucccessful. Alimentation is essential.

ANEURISM, ABDOMINAL.

The diagnosis is based largely on physical signs (see Thoracic Aneurism).

Differential Diagnosis.—From other tumors situated in the neighborhood of the aorta; disease of the stomach, left lobe of the liver, and pancreas producing tumors and enlargement of these organs; cancer of the omentum; *aortic pulsation in the* epigastrium; migratory spleen; *dislocated kidney.*

Treatment.—Pressure (tourniquet, digital). See Tho*acic Aneurism.*

ANEURISM, THORACIC.

Definition.—An aneurism is a tumor produced by the dilatation of an artery, and commencing with the lumen of the vessel. The arch of the aorta is most frequently the seat of aneurism (thoracic), and by preference at the junction of the ascending and the transverse portions. No portion of the arch is exempt from the disease.

Etiology.—Disease of the coats of the artery (chronic endarteritis and atheroma).

Predisposing Causes: Age (between thirty and fifty); male sex; chronic alcoholism; hereditary predisposition; syphilis; chronic Bright's disease; gout; rheumatism; mental emotion (?); mineral poisoning (lead and mercury).

Exciting Causes: Violence, such as blows, wounds, falls; sudden and violent exertion; venereal excess.

Symptoms.—These will vary according to the situation of the aneurism. An aneurismal tumor in the aorta close to the Valsalvian sinus may not give rise to either rational symptoms or physical signs. When developed at the point where it occurs most frequently, it usually gives rise to symptoms both subjective and objective. The subjective symptoms are: Pain (boring); dyspnœa; cardiac palpitation; tenderness; heat; sense of fulness and weight, perhaps hæmoptysis, and these may be developed suddenly after some violent exertion or excess. As the tumor increases in size, it produces symptoms by pressure. Pain then usually becomes a very prominent symptom, is commonly paroxysmal, and radiates in the direction of the distribution of the nerves involved. Pressure on the recurrent laryngeal and the pneumogastric nerves gives rise to changes in the voice (hoarse) and dyspnœa; there may be aphonia (most frequent when the tumor is situated at the junction of the transverse with the descending portion). Pressure on the pulmonary plexus gives rise to a characteristic metallic cough, "brassy." Pressure on the œsophagus gives rise to dysphagia and regurgitation. Pressure on the bronchi and trachea causes metallic cough, stridor, weakened or loss of respiratory murmur, and shortness of breath on exercise. Spasm of the glottis may be due to pressure upon the recurrent laryngeal nerve. Disturbances of the sympathetic (irritation with dilatation or pressure with contraction) gives rise to inequality of the pupils. Per

sistent vomiting may arise from pressure upon the pneumogastric. Hiccough from pressure upon the phrenic nerve. A general cyanotic appearance, also general dropsy, may follow pressure upon the pulmonary artery or right auricle. Inequality of pulse or absence in one radial artery suggests aneurism, and is produced by pressure upon, or obstruction from coagula within, the innominate (affecting the right radial and carotid) or the left carotid or subclavian (affecting the pulse on the left side). Unilateral paralysis of the vocal cords, due to pressure upon the recurrent laryngeal nerve. Pulmonary œdema, congestion, and gangrene may be caused by external pressure upon the pneumogastric. Dyspepsia may be a prominent symptom of aneurism.

Physical Signs.—Bulging at some point along the course of the aorta, seen only after the tumor has come in contact with the thoracic parietes. The absence of bulging of the chest-wall or a tumor does not exclude aneurism. Pulsation (synchronous with ventricular systole and dilating rather than heaving); dulness or flatness; frequently a thrill (press the fingers behind the sternum) and (in a majority of cases) a single or double murmur within the area of the tumor. The absence of a murmur does not exclude aneurism. A systolic murmur over an artery is not proof positive of an aneurism (a tumor pressing on an artery may cause a single or double murmur). The absence of the thrill does not exclude aneurism, although it is a most distinctive sign. Dulness, limited, in the course of the aorta, and without pulmonary disease, is a valuable sign. The absence of visible pulsation does not exclude aneurism (may be absent when the sac is partially filled with layers of fibrin) The heart-sounds are usually loud over the site of the tumor, perhaps louder than in the præcordial region

Differential Diagnosis.—From circumscribed intrathoracic tumors (exostoses, mediastinal, etc.); from pulsation of the aorta or pulmonary artery following shrinkage of the lung in phthisis or after pleurisy; insufficiency at the aortic orifice; cancer of the pleura; localized pulsating empema; abscess between the œsophagus and trachea; laryngeal disease; intercostal neuralgia; angina pectoris; pulmonary consolidation at one apex; fluid in the pericardium.

Treatment.—Absolute rest, physical and mental, is one of the essentials. Everything that accelerates or increases

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the force of the heart's action must be avoided. The recumbent posture should be maintained as much as possible. Sustain nutrition to the highest point. Restrict the taking of fluids.

Iodide of potassium (fifteen to thirty grains t. i. d.); ergot; morphia hypodermically to relieve pain; belladonna externally or the continued use of an ice-bag often relieves the pain; injection of the sac (of very doubtful propriety); electrolysis (?); permanent introduction of horse-hair, wire, etc. (have *not* been followed by satisfactory results); ligation of vessels (see works on surgery); tracheotomy or laryngotomy may be performed to relieve laryngeal symptoms. ("Rest and dietetic treatment. Absolute rest in the recumbent posture for two or three months; two ounces of bread and butter and two ounces of milk for breakfast, two or three ounces of bread and two or three ounces of milk for dinner with two to four ounces of claret wine, and two ounces of bread and butter and milk for supper."—Joliffe Tuffnell.)

ANGINA PECTORIS.

Synonyms.—Suffocative breast-pang; neuralgia of the heart.

Definition.—A cardiac neurosis, associated, in most cases, with structural lesion of the heart.

Etiology.—Inherited predisposition; chronic cardiac disease (aortic more frequently than other valvular lesions); mental excitement; active exercise; straining at stool; a draught of cold air. Is sometimes associated with epilepsy and hysteria, and may precede acute mania.

Symptoms.—Sudden intense pain (may be comparatively slight) in the precordial region, radiating very frequently to the left shoulder and arm, in rare instances to the right, oftener both upper extremities are affected; sense of constriction and suffocation; usually indescribable anguish ("breast-pang"); a feeling of impending death; deadly pallor; cold sweat; the patient assumes a fixed position; as a rule, consciousness and the mental faculties are intact, sometimes there is giddiness and faintness, or the patient falls insensible; convulsions may occur. Pulse small, irregular, *intermitting, usually* increased in frequency, may be *diminished; heart's action* weak. The attack may last from *a few seconds to* several hours. At the end of the attac

the circulation becomes active, the skin warm; eructation of gas or vomiting occurs; copious diuresis. The attacks occur at irregular intervals, tending to become more frequent as the disease progresses; they may follow one another in rapid succession, and terminate fatally. The period of exemption may vary from minutes to years.

Treatment.—During the attack, prompt use of stimulants (brandy, whiskey, ethereals); digitalis; inhalation of amyl nitrite (♏ iij.-v.); hypodermic injection of morphia; revulsive applications to the chest and extremities; ammonia; ether; brandy. In the intervals, exciting causes should be avoided; tobacco interdicted; arsenic, iron, and strychnia in small doses long continued; belladonna for a length of time; electricity; in anæmic subjects, hypophosphites and cod-liver oil; in epileptics, the bromides. Any existing heart-lesion should receive appropriate treatment.

ARTHRITIS DEFORMANS.

Synonyms.—Rheumatoid arthritis; chronic rheumatic arthritis; nodular rheumatism; rheumatic gout, etc.

Definition.—A chronic irritative outgrowth of the cartilages and synovial fringes of the joints, accompanied by progressive destruction of those parts of the cartilages which are most subjected to pressure.

Etiology.—Often obscure. Debility and imperfect circulation; preceding acute rheumatism.

Predisposing Causes: Age (between twenty and forty); the female sex; poverty; bad hygiene.

Symptoms.—In the acute form, several joints are involved; there is no erratic tendency. Fever at times; no sweating; the heart is not liable to be implicated.

In the chronic form, one joint is first affected, being somewhat painful and swollen, but rapidly recovers; soon it is again attacked, and becomes permanently altered. The joints of the fingers are primarily affected in the majority of cases. Other joints suffer afterwards in succession, until the various limbs may show different stages of the affection; they become rigid, permanently bent or extended, distorted and nodulated. The disease is, as a rule, symmetrical. The fingers are deflected in an outward direction, laterally—a deformity which has been regarded as pathognomonic. The muscles atrophy, and the patient

becomes permanently crippled. Crepitus can often be obtained in the affected joints.

Complications and Sequelæ.—Affections of the sclerotic, the inner ear, or the larynx.

Differential Diagnosis.—From gout; from acute and chronic rheumatism; from gonorrhœal (?) rheumatism.

Treatment.—Sustaining. Attention to general health; diet nutritious and easily digestible; alcoholic stimulants; warm clothing; pleasant occupation; moderate exercise; daily baths with salt water, followed by friction; in early cases local counter-irritation; iron, quinine, and cod liver oil; hypophosphites; syrup of iodide of iron; potassium iodide; arsenic; guaiacum; tincture of actæa; strychnia and nux vomica. Systematic strapping; friction with various liniments; shampooing; massage; electricity.

ASCITES.

Synonyms.—Abdominal dropsy; hydro-peritoneum; dropsy of the peritoneum.

Definition.—A collection of serous fluid within the peritoneal cavity. Strictly, it is a symptom rather than a disease.

Etiology.—Modified action of the capillary vessels of the peritoneal membrane, due to morbid process in the serous membrane. Remote cause, obstruction of the portal circulation, as by cirrhosis, perihepatitis, and other changes in the liver, or tumors; or some disease affecting the circulation in the epigastric veins, as by obstructive disease of the heart or lungs, chronic nephritis. It occurs with general dropsy, after exposure to cold and wet; as the result of impoverished blood (hydræmia).

Symptoms.—Onset is obscure. An accumulation of liquid is determined by inspection, palpation, and percussion. Increasing fulness of the abdomen, uniformly rounded. If the effusion is great and of long standing, the umbilicus is forced outward and hernial sacs become dilated. Embarrassed respiration and heart's action; urine diminished; constipation; impaired appetite; œdema of lower extremities and genitals.

Physical Signs.—On inspection, glistening appearance *of the skin; enlargement* of superficial veins (where associ*ated with chronic* obstruction of the portal circulatior

pouting of the umbilicus. Increased circumference on mensuration; wave-impulse on palpation; tympanitic note over the distended bowel and dulness over the fluid on percussion; the level of the fluid changing with change in the patient's position.

Differential Diagnosis.—From ovarian tumors; from pregnancy; from a distended or sacculated bladder; from chronic peritonitis; from enlarged spleen; from tympanites.

Treatment.—Remove the cause. "Dry diet;" if not feasible, skimmed milk in large regular doses. Several watery evacuations daily should be secured by hydragogue cathartics (best, elaterium, ¼ gr. at short intervals; or compound jalap powder, ʒ i. to ij. in the early morning). Diuretics (action uncertain). Jaborandi or pilocarpine; Turkish or Russian baths. Tapping (perhaps promptly necessary to relieve suffering), followed by mechanical compression of the abdomen (early paracentesis has been strongly advocated). Tonics—quinia, iron, cod-liver oil.

PRESCRIPTIONS.

℞ Asclepiadis syriacæ (milkweed) ..... ℥ ss.
Aquæ ..... O. ij.
Ft. infusio. This amount to be taken in forty-eight hours. (The bark of the root is the medicinal agent.)

℞ Magnesiæ sulph ..... ℥ i.
Fl. ext. sennæ ..... ʒ i.
M. S. Every other day. For ascites with general dropsy.

℞ Hydrarg. chloridi mitis,
Pulv. digitalis,
Pulv. scillæ ..... āā gr. vi.
M. Div. in pil. No. vi. S. One t. i. d.

℞ Res. copaibæ ..... ʒ iij.
Alcohol ..... ʒ v.
Spts. chloroformi ..... ʒ i.
Mucil. acaciæ ..... ℥ ij.
Aquæ ..... ad ℥ xij.
M. S. Tablespoonful t. i. d.

ASTHMA.

Definition.—A disease characterized by sudden attacks of dyspnœa, which increase rapidly in severity, and last from a few hours to several days.

Etiology.—Spasm of the bronchial muscles; predisposition by heredity; inhalation of irritants; coexisting inflammation of the bronchi; cardiac disease; central nervous irritation (?); reflex nervous irritation (uterine, dyspeptic, verminous asthma, and from irritation of the sensitive nerves of the skin and mucous membranes, nerves of smell,

etc.); irritation of the pneumogastric nerves (swollen glands). Most frequent in middle life and among men.

Symptoms.—Paroxysmal attacks of spasmodic dyspnœa, occurring usually at night; labored wheezy respiration; face flushed and cyanosed; eyeballs prominent; perspiration.

Physical Signs.—Labored and short inspiration; very prolonged expiration. On auscultation, jerking or cog-wheel respiration, with various sonorous and sibilant râles (sometimes loud enough to be heard at a distance from the patient); vesicular murmur feeble or absent.

Differential Diagnosis.—From cardiac dyspnœa; from capillary bronchitis; from emphysema; from spasm of the glottis; from paralysis of the crico-arytenoid muscles; from spasm of the diaphragm.

Complications.—Bronchitis; pneumonia.

Treatment.—During the attack: Hypodermic injections of sulphate of atropia, $\frac{1}{40}$ of a grain in the nape of the neck; apomorphia, hypodermically, gr. $\frac{1}{10}$; hypodermic injection of morphia, gr. $\frac{1}{2}$–$\frac{1}{4}$; quebracho, tinct., ʒ i. every hour; chloral hydrate, ℈ i.-ʒ ss.; inhalation of amyl nitrite or of the vapor of ether or chloroform; inhalation of the smoke of the leaves of belladonna, stramonium, tobacco, grindelia, and poppy with nitre; frequent brief inhalations of potassium iodide spray (1 in 20); potassium iodide, gr. xv.-xx., every two to four hours; tincture or fluid extract lobelia; wine of ipecac, gtt. v.-x., every five minutes; fluid extract grindelia robusta, ʒ ss. every hour or two; erythroxylon coca, etc. An impending attack may often be averted by two or three cups of strong hot coffee; twenty to thirty grains of quinia may avert a paroxysm; also alcoholics, hot and strong.

During the intervals, the patient should avoid ascertained exciting causes. The diet should be light, easily digestible; starchy and saccharine substances and milk to be excluded; little water to be drunk at meal-time. Quinia, arsenic, and belladonna may be given for a long time; or iodide of ammonium or potassium, grindelia, eucalyptus, and guaiacum. Change of air or of climate if other means fail. For each asthmatic (it has been said) there is a spot on the face of the earth where he can live with comparative comfort.

PRESCRIPTIONS.

℞ Morph. sulphat. ... ... gr. i.
Chloral ..... ʒ i.
Syr. zingiber..... ʒ iv.
Mist. glycyrrhiz. co. ....ad fl. ℥ i.

M. S. Teaspoonful every half-hour or hour until relieved. For spasmodic asthma.

℞ Spts. ætheris comp ..... ℥ i.
Tinct. belladonnæ ..... ʒ i.

M. S. Teaspoonful t. i. d.

℞ Lactucarii..... gr. ix.
Potassii iodid..... gr. lxxvii.
Spts. æther. chloric.... ♏ xviij.
Syr. simplicis..... ..... ℥ i.
Aquæ..... fl. ℥ v.

M. S. One to two tablespoonfuls t. i. d.

℞ Spts. ether co.,
Liq. morph. sulph. (U. S. P.),
āā fl. ℥ i.

M. S. Teaspoonful every half-hour or hour.

ATELECTASIS.

Synonyms.—Pulmonary collapse; apneumatosis; carnification of the lung.

Definition.—Imperfect or entire absence of expansion of the lungs. This is the normal fœtal condition, but when it continues after birth, it is called *congenital* atelectasis. From different causes, a portion of lung which has been perfectly expanded loses its capacity for air and collapses; this condition is known as *acquired* atelectasis. Many writers regard atelectasis and carnification as identical; others regard it as a fœtal condition which remains and is never acquired.

Etiology.—(Acquired): Complete and continued obstruction or narrowing of a bronchial tube; compression of the lung by hydrothorax, empyema, hydropericardium, aneurisms, tumors, rickets of the bones of the chest. Young children are chiefly affected. A circumscribed atelectasis may occur with lobular pneumonia.

Symptoms.—Dyspnœa; quick and shallow breathing; pallor of the body; ends of the fingers and face bluish or dusky; prostration; coldness of the extremities; weak voice; a feeble cough; rapid feeble pulse; slight expansion of the chest-walls. If bronchitis co-exists, the physical signs of that affection. If dulness on percussion exists, it may be due to pneumonia or collapse of lung tissue.

***Differential* Diagnosis.**—From pneumonia; from pleurisy.

Treatment.—Counter-irritation by rubefacients, friction, or iodine. Suitable nourishment and stimulants. Io-

Treatment.—Internal remedies are of no avail. Moderate exercise of the affected muscles; friction, shampooing, and stimulating embrocations; electricity; warm sulphur baths; hot douches to the spine; the rubbing wet pack for the affected members; intermuscular injection of glycerin solution (1 in 3) (?). Attention to general health and nutrition.

BILE-DUCTS, CATARRH OF THE.

Synonym.—Inflammation of the bile-ducts.

Definition.—An inflammation of the mucous membrane of the bile-ducts. It may be catarrhal, with an increased production of mucus; or croupous, associated with pyæmia, diphtheria, and other infectious diseases.

Etiology.—Climatic or malarial influences; parasites. The affection is commonly secondary to duodenal or gastro-intestinal catarrh, hepatic congestion, impaction of gall-stones, etc.

Symptoms.—Pain, soreness, and sense of dragging in the right hypochondrium; constipation; coated tongue; nausea; anorexia; feverishness; malaise; headache. In from three to five days, the conjunctivæ become yellow, and the icterus spreads over the body. (The jaundice may precede the constitutional disturbance.) Two or three days later, the fever ceases; the surface becomes cold, dry, and harsh. Pulse slow; heart weak; debility. The urine becomes brownish; stools light-colored, pasty, and offensive; flatulence; itching of the skin; yellow vision (xanthopsia). Liver enlarged; gall-bladder tender. These symptoms gradually subside, and recovery, in a simple case of catarrhal inflammation, usually becomes complete in from three to six weeks. The general symptoms will vary according to the extent to which the duodenum and stomach are involved.

Treatment. Calomel, gr. $\frac{1}{12}$–$\frac{1}{6}$, rubbed with sugar, every four hours for a few days (?); effervescing powders or Saratoga, Vichy, Kissingen, or Carlsbad waters; ice-water. In chronic cases, sodium phosphate, ʒ i., t. i d., until jaundice declines. Euonymin (from wahoo), gr. ij., or iridin, gr. iv., at night, followed by a saline aperient. Opium to relieve pain. Careful regulation of the diet; best, milk and beef-juice; solids, and especially fatty and saccharine substances, to be withdrawn until the symptoms subside.

[redacted]

Counter-irritation after the subsidence of the acute symptoms. Treat the gastritis; oxalate of cerium, bicarbonate of sodium, hydrocyanic acid, etc.; after the vomiting has subsided, a cathartic of calomel, castor-oil, rhubarb, and magnesia may be serviceable. If gastric symptoms are not present, a promptly-acting cathartic at the beginning may be very beneficial. The constipation is sometimes very obstinate. Stimulants may be necessary in cases in which the disease occurs in drunkards.

BRONCHITIS.

Synonyms.—Catarrh of the tracheal and bronchial mucous membrane; bronchial catarrh.

Definition.—A catarrhal inflammation of the bronchial tubes.

Etiology.—*Predisposing Causes:* Early or advanced age; individual peculiarity; male sex; debilitating diseases or habits; improper clothing; constitutional diseases, such as rickets and gout; chronic pulmonary diseases or previous attacks; cardiac diseases; a cold and damp climate or season; frequent, sudden, or severe variations of temperature, etc.

Exciting Causes: Taking cold; inhalation of irritants (gases and vapor, dust, etc.); morbid growths, foreign bodies, etc. In connection with various diseases, such as typhoid fever, measles, whooping cough, epidemic influenza, small-pox, cardiac diseases, gout, rheumatism, and syphilis; sudden disappearance or suppression of skin affections and habitual discharges (?).

Acute and Subacute Varieties.

Symptoms—Repeated chilliness; pain in the back and extremities; headache; coryza; sore throat, some hoarseness; tightness or constriction in the chest; soreness beneath the sternum and thoracic pains; furred tongue; anorexia; constipation; harsh (nearly dry at first) cough; frothy expectoration (after one or two days), sometimes streaked with blood; often associated with light fever at the beginning; dyspnœa in proportion to the extent and intensity of the inflammation; *critical* sweating occasionally.

Physical Signs.—Impeded expiration, percussion normal, as a rule; early, dry sonorous and sibilant râles (com-

ing and going and changing their situation); later, large and small moist, mucous râles (varying in character and position). Bronchial fremitus, especially in children. Vesicular murmur harsh; may be diminished or suppressed; expiration prolonged (especially in chronic catarrh); vocal resonance unaltered.

Chronic Variety.

Symptoms.—Cough (very frequently paroxysmal); dyspnœa; muco-purulent expectoration, with or without constitutional disturbance. The expectoration may be ash-colored or deep-green, and it may be fœtid; it may be profuse, watery and transparent, or gelatinous and ropy (pituitary catarrh, bronchorrhœa).

Physical Signs.—Those of the acute form, but dry râles are scarcer, and mucous râles more abundant; irregular action of the heart (late symptom). The physical signs of emphysema when that disease complicates.

Differential Diagnosis.—From pneumonia; from asthma; from emphysema; from pulmonary hemorrhage; from phthisis; from pyothorax; from perforation of the lung.

Treatment.—On appearance of first symptoms, Dover's powder, gr. v. to x., or quinine, gr. x., or sulphate of morphia, gr. $\frac{1}{8}$ to $\frac{1}{4}$, at bed-time, with a warm stimulating drink and a hot pediluvium; followed in the morning by a saline purgative. Anodyne inhalations (molasses and water, etc.). Salicin, gr. xx., repeated once or twice after two hours' intervals. Tartar emetic (?), gr. $\frac{1}{16}$, with morphia, gr. $\frac{1}{12}$, in syrup of lactucarium or water. For children, syrup of ipecac or of Tolu and paregoric; if there is much fever, gtt. i. or less of tincture of aconite root may be added. Muriate of ammonium. Carbonate of ammonium with small doses of morphia (used with care) for cough. Potassium iodide is useful in many cases. Quinine and other tonics. In young children, occasionally prompt emetics are indicated, with nutritious diet, tonics, occasionally alcoholics; iodide of potassium. Sinapisms, dry cups, rubefacients, cod-liver oil and quinine if convalescence is delayed. Colchicum and alkalies in gouty *and rheumatic patients.* Blisters may be of service after *the acute stage.* Remove causes as a prophylactic measure.

Chronic bronchitis requires nutritious, non-stimulating *diet; counter-irritation;* stimulating liniments; careful pro-

℞ Tinct. sanguinariæ ..... ʒ i.
Ammon. muriat ..... ʒ i.
Syrup. Tolu..... ʒ ij.
Spts. ætheris nitros..... ℥ ss.
Aquæ ..... ℥ iiiss.
M. S. Tablespoonful p. r. n. Chronic bronchitis.

———

℞ Eupatorii,
Potass. chlorat.,
Rad. rhei,
Serpentar. virgin. .....āā ℥ ss.
M. Add to a pint and a half of cold water, and take a wineglassful t. i. d. Chronic bronchitis.

———

℞ Morph. sulphat..... gr. i.
Ammon. carbonat. gr. xxx.-xl.
Syrup. prun. virg.,
Mist. glycyrrhiz. co.. āā fl ʒ iv.
M. S. Teaspoonful in water for cough. In chronic bronchitis

℞ Tinct. guaiaci ..... ʒ i.
Tinct. bals. Tolu..... ʒ ss. to i.
M. S. One or two teaspoonfuls three or four times daily after the subsidence of the acute symptoms as the disease advances.

———

℞ Ammon. muriat..... ʒ iss.
Syrup. Tolu,
Syrup. prun. virg. ..... āā ℥ i.
M. S. Teaspoonful three or four times daily. Subacute and chronic bronchitis.

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℞ Potass. iodid..... ʒ j.
Vin. ipecac... ..... ʒ ij.
Spts. ætheris co..... ʒ j.
Syr. simplicis..... ℥ i.
Aquæ..... ℥ v.
M. S. Tablespoonful every two hours during asthmatic paroxyms in chronic bronchitis with emphysema.

BRONCHITIS, CAPILLARY.

Synonyms.—Catarrhus senilis; peripneumonia notha; bastard pleurisy; suffocative catarrh.

Definition.—Inflammation of the mucous membrane lining the capillary bronchial tubes.

Etiology.—Extension of the inflammation affecting the larger bronchi. Independent forms may occur. It may be associated with infectious diseases, as diphtheria, typhoid fever, the acute exanthemata, etc. Is most frequent in young children and the aged.

Symptoms.—Those of acute bronchitis (distinct chills may occur), together with severe dyspnœa, lividity of the surface, and great prostration. Cough occurs with variable severity and frequency. Febrile movement moderate or marked.

Physical Signs.—Rapid respiratory movements; impeded respiration (both inspiration and expiration); occasionally rhonchial fremitus. Normal or slightly exaggerated resonance over the upper part of the chest. Signs of general bronchitis, together with the characteristic fine bubbling râles (especially infra-scapular). Retraction of the hypochondrium and hypogastrium. The disease may be localized.

Complications.—Broncho-pneumonia; atelectasis.

Differential Diagnosis.—From ordinary acute bronchitis; from asthma; from pulmonary œdema (the two diseases are liable to occur together); from pleurisy; from phthisis.

Treatment.—Early in the disease, muriate of ammonia with syrup of ipecac; later, carbonate of ammonium. Dry cups and sinapisms. Inhalations of steam, which may be impregnated with sedatives. Iodide of ammonium in small frequent doses. In children, occasional prompt emetics apormorphia, gr. $\frac{1}{20}$–$\frac{1}{10}$, hypodermically). Mustard baths. If exhaustion supervene, alcoholics and strychnia, gr. $\frac{1}{30}$–$\frac{1}{20}$ For cough and spasmodic tendency, camphor or small doses of hydrocyanic acid. The chest should be kept constantly warm and moist by large jacket poultices. Nutritious diet. The disease to which the affection is secondary must be constantly kept in view.

BRONCHITIS, PLASTIC.

Synonyms.—Pseudo-membranous bronchitis; diphtheritic bronchitis; croupous bronchitis; bronchial croup; exudative bronchitis; bronchitis with fibrinous exudation.

Definition.—A disease in which the croupous process originates in the bronchi and a false membrane is deposited upon the mucous membrane. It may be acute or chronic (most frequently the latter).

Etiology.—Is obscure. Very rare as a primary affection. A diathetic condition (?); hereditary tendency (?). Is most frequent in young female adults. It occurs most frequently between ten and thirty years of age. A special predisposition the nature of which is unknown.

Symptoms.—In the majority of cases, the disease is preceded by simple catarrh. In the acute cases, the simple catarrhal symptoms continue for a few days, and more or less suddenly are succeeded by intense dyspnœa, active febrile movement, harsh cough, scanty expectoration, sense of constriction of the chest, frequently admixture of blood with the sputa, and after the lapse of some days expectoration of fibrinous material which may be in the form of casts of the bronchial tubes, more or less complete. The casts are sometimes thrown out together in a ball; at other times in fragments. The expectoration of these masses

followed by immediate relief. Bloody expectoration may precede and follow expulsion of these casts. In the chronic cases, symptoms of ordinary bronchitis (usually of long standing), development of severer symptoms, such as paroxysmal cough, great dyspnœa followed by the expulsion of the fibrinous masses. This form may continue for years, without marked effect upon the general condition of the patient. The recurrence of the attacks is irregular. Eight to ten casts have been expelled daily by a single patient. Cases occur in which the casts are expectorated with considerable facility (exceptionally with almost no effort). The voice is not usually affected. Violent and prolonged paroxysms of coughing usually precede the expulsion of the cast.

Physical Signs.—Mostly negative. Respiratory murmur weakened or absent over the obstructed bronchial tubes. Moist bronchial râles may or may not be present. Resonance on percussion and vocal resonance unaffected. A flapping valvular sound has been described, a loud whistling, or a bronchial friction sound. The only characteristic symptom is the expectoration of branching bronchial casts.

Treatment.—During paroxysms, inhalation of steam and lime-water; emetics—best, apomorphia hypodermically, or subsulphate of mercury or sulphate of zinc; sinapisms, turpentine fomentations, or a blister to the chest. In the intervals, potassium iodide, copaiba, turpentine, eucalyptol, the balsams, and arsenic persistently. Tonics, cod-liver oil, change of climate or a long sea-voyage. The general health must be maintained and all causes of cold avoided.

CALCULI, RENAL.

Synonyms.—Nephrolithiasis; renal colic; gravel.

Definition.—Concretions formed by the precipitation of certain substances from the urine. (Uric acid is by far the most common basis, $\frac{19}{20}$ of the cases. Thompson.) (For vesical calculi consult surgery.)

Etiology.—Heredity; sedentary habits; indulgence in *highly nitrogenous diet*; male sex.

Symptoms.—A calculus may remain in the pelvis of *the kidney, or small* calculi may pass, without occasioning *ny symptoms.* The pain caused by the passage of a cal-

culus along the ureter is proportionate to its size and roughness. A paroxysm of colic is usually sudden, but may be preceded by some pain or uneasiness. Severe excruciating pain in the lumbar region, radiating in different directions, especially along the ureters, thighs, and genitals; tenesmus of the bladder; urine scanty, sometimes bloody, may be suppressed. Anorexia; thirst, nausea and vomiting; faintness; coldness of the surface; sweating. Relief is sudden if the calculus reaches the bladder; if it remains impacted, hydronephrosis, pyelitis, and pyelonephritis may ensue. The first sign of the "uric-acid diathesis" is mere cloudiness of the urine when cold, or deposit of pinkish material persistently; very commonly associated with the gouty condition.

Differential Diagnosis.—From biliary colic; from lumbago; from enteralgia.

Treatment.—During the attack, morphia hypodermically, or enemata of laudanum or belladonna; inhalation of chloroform or ether; Hydrangea arborescens, fluid extract, half a drachm, with a few drops of tincture of hyoscyamus every three hours; warm baths; hot applications to the loins; purgatives. During the intervals, mineral waters, preferably the Friedrichshalle and Carlsbad; the occasional use of small doses of mercury: potash or lithia salts, etc. Skimmed milk or buttermilk to be taken freely. Alcohol, fatty, and saccharine matters very sparingly; fresh green vegetables abundantly.

CATALEPSY.

Definition.—A paroxysmal affection attended by loss of consciousness and sensibility and a state of tonic rigidity of the muscles.

Etiology.—Is rarely an independent affection; usually associated with hysteria, ecstasy, or somnambulism. Is almost exclusively confined to young, nervous, impressible subjects.

Symptoms.—The attacks may be preceded by hysterical symptoms or develop suddenly. The patient remains immovable *in whatever position* the body happened to be *at the moment of the attack;* the muscles are more or less *rigid, but yield to passive* motion, retain the position give *them, but the muscular* contraction is gradually overco

by the force of gravity (pathognomonic symptom). Loss of consciousness may be complete or incomplete; the vital functions may be little if at all disturbed; sensations of touch and pain, also reflex movements, impaired and may be abolished. The attacks occur at variable intervals, and may last from a few minutes to several days or longer.

Treatment.—Is essentially that of hysteria. Prolonged paroxysms may require forced alimentation; friction with stimulating liniments; inhalation of amyl nitrite; electricity; anti-spasmodics, etc.

CHLOROSIS.

Synonyms.—Green-sickness; cachexia virginum; anæmia; chloro-anæmia; spanæmia.

Definitions.—An anæmia peculiar to girls about the period of puberty.—A disease of the sympathetic nervous system peculiar to girls about the period of puberty.

Etiology.—Is obscure. Heredity; menstrual irregularities (?); abnormal narrowness of the aorta (?); prolonged habitual constipation; excessive mental labor; disappointment in love: erotic excitement without gratification; prolonged mental anxiety; depressing domestic influences; home-sickness; sudden and extreme fear.

Symptoms.—Morbid exuberance or depression; sometimes hysteria and nymphomania; neuralgia (especially visceral); dyspepsia; amenorrhœa or menorrhagia; leucorrhœa; blondes become pallid and waxy; brunettes, of a muddy grayish complexion, with dark rings under the eyes; the sclerotic assumes a pearly lustre; mucous membranes pale and bloodless; lassitude; craving unpalatable and innutritious substances (chalk, slate, etc., vinegar, lemon-juice, etc.); weakness; dyspnœa and palpitation on slight exertion; pulse full and soft; coldness of hands and feet; often a dry barking cough; sensitiveness along the spine; distress in the solar plexus of nerves; irregular respiration; irregular and excessive flushing of the face.

Physical Signs.—Anæmic bruit at the base of the heart; venous hum in the neck.

Complications and Sequelæ.—Phthisis; perforating ulcer of the stomach; endocarditis; paroxysms of hysteria, hypochondriasis, and chorea.

***Differential* Diagnosis.**—From benign anæmia; from *leucocythæmia;* from pernicious anæmia.

Treatment.—Some of the preparations of iron, such as the tincture of chloride, sulphate, pyrophosphate, etc., which may be combined with manganese; lactophosphate of lime; arsenic and strychnia. Generous diet; out-door air; moderate exercise; massage; faradization.

PRESCRIPTIONS.

℞ Tinct. ferri chlor .....fl. ʒ iij.
Acid. acet. dil.....fl. ℥ ss.
Liq. ammon. acet.....fl. ℥ iiss.
Curaçoæ (vel syrup. aurantii),
Syrup. simpl..... .... āā fl. ℥ i.
Aquæ.....q. s. ad fl. ℥ viij.
M. S. Tablespoonful after each meal. Tonic.

℞ Tinct. ferri chlor .....fl. ʒ ij.
Acid. phosph. dil.....fl. ʒ iij.
Spts. limonis..... .....fl. ʒ i.
Syr. simpl.....fl. ℥ iiss.
Aquæ .....q. s. ad fl. ℥ vi.
M. S. Tablespoonful after each meal. Tonic.

℞ Pulv. ferri sulph. exsicc.,
Potas. carb. puræ.....āā ʒ ij.
Syrupi..... .... q. s.
M. et div. in pil. No. xlviij. S. One pill t. i. d. after meals for three days; four pills on fourth, five on fifth, six on sixth day, gradually increased to three pills t. i. d. Tonic.

℞ Hydrarg. chlor. corr .....gr. i.
Liq. arsen. chlor.....fl. ʒ ss.
Tinct. ferri chlor.,
Acid. hydrochlor. dil..āā fl ʒ iv.
Syrupi... ..... fl. ℥ iij.
Aquæ.....q. s. ad fl. ℥ vi.
M. S. Dessertspoonful in a wineglassful of water after each meal. Alterative tonic.

℞ Ferri vini amari [bitter]. ℥ viiss.
Tinct. nucis vom..... ... ʒ iv.
Solut. potassæ arsen..... ʒ ij.
M. S. A dessertspoonful in a wineglassful of water after each meal.

CHOLERA, ASIATIC.

Synonyms.—Epidemic, Algide, or Malignant Cholera, etc.

Definition.—An epidemic disease characterized by copious watery discharges from the alimentary canal, shrinking of the tissues, cramps, and extreme prostration. It is not directly contagious.

Etiology.—A specific poison, the nature of which is obscure, but which is known to be conveyed by water and milk, caravans, ships, clothing, etc.

Predisposing Causes: High temperature combined with a heavy moist atmosphere; bad sanitary conditions; impure food and water; fatigue; errors in diet; abuse of purgatives; depressing *mental influences*; advanced age; intemperance; *impaired health. One attack* affords no protection against *another.*

Symptoms.—*Incubation* is uncertain; from one to eighteen days.

Invasion stage (is often short or absent): Diarrhœa which may be attended with griping, or else cholerine; sometimes languor, chilliness, debility or depression, trembling, altered facial expression, headache, giddiness, tinnitus, epigastric tenderness.

Evacuation Stage or Stage of Development: Constant purging (rice-water discharges, devoid of coloration from bile pigment, have no fecal odor, and contain little masses which resemble particles of rice, and consist of mucus, epithelium, and a few blood-globules) and vomiting (projectile); thirst; painful cramps; prostration and collapse; restlessness. Tongue white, pasty, and cold. Expired breath gives the sensation of coldness.

This stage merges more or less rapidly into the

Stage of Collapse or Algide Stage: Features pinched and shrunken, of leaden or livid hue; eyeballs sunken; dropping of lower lid; nose sharp and pointed; cheeks hollow. The surface of the trunk is more or less cyanotic; skin wrinkled and shrivelled; cold clammy sweats. Suppression of urine may occur. The temperature falls rapidly in the superficial regions. Radial pulse feeble and thready, sometimes extinct; in bad cases no pulse can be felt in the brachial and carotid arteries; heart's impulse weak or almost imperceptible. Hiccough. Paroxysmal dyspnœa. Voice weak, husky, sometimes inaudible. Jactitation and wakefulness. Anxiety changing into apathy. Occasionally headache, giddiness, tinnitus, muscæ volitantes, clouded vision. Reflex irritability impaired; cramps continue. In fatal cases, stupor followed by coma.

The functions of absorption and secretion in general are impaired or abolished. Purging and vomiting diminish; much retching may continue. The stools are less liquid and are often passed in bed. Intense thirst. Typhoid symptoms. Temperature rises with the approach of death. Increased heat of the body has been observed after death.

Stage of Reaction: Expression, aspect, and color change; pulse and heart's action improve; capillary stasis diminishes; surface becomes warmer; respiration easier; other

Complications and Sequelæ.—Mild consecutive ever, sometimes remittent or intermittent; obstinate vomiting with gastritis, hiccough; restlessness; acute desquamative nephritis with uræmia; typhoid condition; dysentery; enteritis; pneumonia, bronchitis, or pleurisy; inflammation of the genitals; parotid bubo; corneal ulceration; gangrene of various parts; bed-sores, boils, or carbuncles; diphtheritic exudation of the fauces or larynx.

Differential Diagnosis.—From simple diarrhœa which often precedes it; from poisoning by arsenic; from effects of croton oil; from severe summer cholera; from perforation of the stomach or bowel; from extensive enteritis; from severe remittent fever (in the cold stage).

Treatment.—During the prevalence of an epidemic, preventive measures must be employed; quarantine; cleanliness and free ventilation; disinfection of stools; attention to sewers and drains, to the water supply, to milk, to diet, to temperance, to the mental state. Removal beyond the area of infection. Every diarrhœa or choleraic attack should receive careful attention. Absolute rest in bed should be insisted upon at once upon the appearance of diarrhœa. Pure fresh air in abundance.

Curative treatment must be commenced early to be efficacious. In the evacuation stage, the majority of the profession favor the use of opium in some form (some using a large dose at the start, as half a grain or a grain placed dry on the tongue of an adult, while others prefer a mild opiate with a small dose of a diffusible stimulant), repeated at once if rejected, or per enema, or hypodermically (objected to by some), followed by smaller ones, combined with capsicum, camphor, chloroform and an astringent, such as acetate of lead, tannic or gallic acid, dilute sulphuric acid, kino, catechu, krameria. After collapse has occurred, opium is contra-indicated. Rectal or hypodermic injections of brandy; injections of strong tea. Also chlorodyne, carbolic acid, hydrocyanic acid, tincture of camphor, etc., for vomiting. Perspiration should be encouraged. Effervescent drinks. Perfect quietude. Complete disinfection.

In the collapse stage, injection of atropia; stimulants carefully administered—*brandy* with iced water and champagne *in small frequent doses;* whiskey hypodermically. Ice *freely. After purging* has ceased, brandy and beef-tea per *nema. Injections of* water into the cellular tissue. Di

fusible stimulants—aromatic spirits; ammonia carbonate; ether; camphor; musk, etc., combined with essential oil of peppermint, cinnamon, or cajuput. Hot strong coffee. Everything perturbatory should be avoided. Experiments of injecting liquid into the veins has not offered much ground for encouragement.

Many specifics have been recommended, but all have proved inefficient.

Food should not be given at first, as it will be immediately rejected. Later, lime-water and milk, beef-tea, chicken broth, soft-boiled eggs, arrow-root, and boiled milk. Ice may be allowed *ad libitum*, but no drinks until collapse stage. Enemata of ice-water or of warm milk.

Locally, a large mustard poultice over the abdomen, repeated at intervals. For cramps, sinapisms, and gentle friction by hand, alone or with turpentine or chloroform liniment.

When reaction sets in, the process should not be interfered with. Great care in diet—blandest liquid food in small quantities, until the stools become natural. Water freely, to which sodium chloride and sodium carbonate may be added. Encourage the re-establishment of secretions. Complications and sequelæ to be treated as they may arise. Tonics and iron during convalescence.

Throughout the disease, cleanliness and ventilation of the sick-room; immediate removal and disinfection of the stools and of soiled and wet bed-clothes. Precautions against bed-sores. The catheter for retention of urine; hot applications and dry cupping over the loins for suppression.

PRESCRIPTIONS.

℞ Chloroform. et
Tinct. opii et
Spts. camph. et
Spts. ammon. arom..āā fl. ʒ iss.
Creasot .....gtt. iij.
Olei cinnamom. .....gtt. viij.
Spts. vin. gall.....fl. ʒ ij.

M. Dissolve a teaspoonful in a wineglassful of ice water, and of *that give two teaspoonfuls every five minutes, followed each time by a lump of ice, to arrest the rice-water discharges.*

℞ Acid. sulph. arom.,
Tinct. opii deod.....āā ʒ i.
M. S. Ten to thirty drops in water every hour or two. For diarrhœa.

℞ Morphiæ sulph.....gr. 1/6.
Atropiæ sulph. .....gr. 1/120.
For hypodermic injection in cholerine.

℞ Tinct. camphor.,
Tinct. capsici,
Tinct. opii.....āā ʒ ss.
Tinct. catechu.....ʒ ij.
M. S. A teaspoonful p. r. n.

℞ Acidi carbol ..... gr. viij.
Bismuth. subnit..... ʒ ij.
Mucil. acac.,
Aq. lauro-cerasi.....āā ℥ i.
M. S. A teaspoonful every hour or two. For vomiting and diarrhœa during reaction.

CHOLERA INFANTUM.

Synonyms.—Summer complaint; summer cholera; choleriform diarrhœa of children; gastro-intestinal catarrh.

Definition.—An acute gastro-intestinal catarrh, occurring in children during the period of the first dentition (chiefly under two years of age), and characterized by fever, vomiting, and purging.

Etiology.—Bad hygiene (tenement houses); continuous high temperature; improper food (artificial feeding); crowding (foundling asylums).

Symptoms.—*Prodromal* (may be absent): Restlessness; irritability; feverishness; occasionally diarrhœa for some time.

Actual: Retching and vomiting (not always present); purging (always present); first more or less fecal, then watery, greenish or greenish-yellow. Colicky pains. Prostration marked and appears early. Wasting (rapid); eyes sunken, half-closed; mouth half-open; lips dry, cracked, and bleeding; face shrunken and pallid; husky whine or cry; erythematous rash about the anus, buttocks, and genitals. Mind torpid. Convulsions and coma may ensue.

Fever (commonly not present at first), remittent in type; temperature 102° to 104° F.; pulse rapid and feeble, 140 to 160; respiration shallow; hypostatic congestion and œdema (pulmonary); carbonic acid poisoning; coma; death.

Differential Diagnosis.—From true cholera; from simple diarrhœa.

Treatment.—Pellets of ice if the patient is old enough to hold them in the mouth. Fomentations to the abdomen. Attention to diet: amount and duration of nursing to be restricted to two tablespoonfuls every two to three hours. If bottle-fed, dilute the milk with lime-water. If that disagrees, barley-water with cream may be used. Wine whey. Finally chopped meat. For fever, sponging, commencing *with water at 95° to* 100° F., gradually cooled to 85°, 80°.

60° F., by the addition of cold water. Duration, ten minutes; two to three spongings per diem.

Cognac (♏ xx.–ʒ ss.) every two to four hours in very cold water. Elixir of calisaya. Opium if other means fail (laudanum in drop doses every two or three hours to a child one year old). Bismuth (gr. x.) with carbolic acid (gr. $\frac{1}{4}$ to $\frac{1}{2}$) every two hours, which may be combined with mistura cretæ. Lead and persulphate and pernitrate of iron. Infusion of rhubarb with tincture of cinnamon and bicarbonate of potassium (excellent in some cases). Chloroform and hydrocyanic acid. Calomel in doses of $\frac{1}{50}$ to $\frac{1}{60}$ gr. every half-hour, rubbed up with sugar of milk and dropped on the tongue. Vegetable astringents—krameria, tannic acid, kino, catechu, hæmatoxylon, etc. Change of air. If possible, send these patients to a different place; need not hesitate to have the child removed, no matter how sick it may be. If there is much straining, with mucous discharges tinged with blood, Fowler's solution (gtt. $\frac{1}{8}$ to $\frac{1}{4}$) with tincture of opium (gtt. ss. to i.) every three hours. Enemata of starch and laudanum. Hot-water enemata. Counter-irritation by turpentine stupes or sinapisms to epigastrium.

PRESCRIPTIONS.

℞ Acid. carbolic..... .. grs. xxiv.
Spts. vini gall.. ..... gtt. xxiv.
Aquæ menth. pip. ..... ℥ iss.
Mucil. acac ..... ʒ vi.
Syr. papaveris..... ʒ vi.
Tinct. opii.....gtt. x.
M. et S. Teaspoonful every two hours. Apply a spice poultice over the stomach, made of cloves, cinnamon, and ginger, mixed with brandy. The first effect is to check the vomiting, commonly at once. The second effect is to change the character of the passages, which usually occurs within twenty-four hours. The third effect is to reduce the frequency of the passages.

℞ Hydrarg. chlor. mitis...gr. 1/6.
Plumbi acetatis..... gr. 1/3.
Opii..... gr. 1/6 to 1/10.
M. et repeat every half-hour or hour to relieve the acute gastric symptoms.

CHOLERA MORBUS.

Synonyms.—Cholera nostras; sporadic cholera; European or English cholera; summer cholera.

Definition.—An acute catarrh of the stomach and intestines, attended by vomiting, purging, and cramps. The stomach and small intestine, or the small intestine alone may be affected.

Etiology.—Climatic influences; irritants; unripe fruits and vegetables; fermentation of food in the stomach.

Symptoms.—May be preceded by epigastric uneasiness, diarrhœa, nausea, coated tongue, and malaise for a day or two; usually sets in suddenly and violently, mostly about midnight. Chill; intestinal pains; nausea and vomiting (projectile); purging of thin liquid stools (sometimes rice-water discharges); face pinched and cyanosed; surface cold and covered with clammy sweat; skin shrivelled; voice husky; sometimes hiccough; tongue and breath cold; intense thirst; anxiety; restlessness; exhaustion; urine diminished, slightly albuminous, sometimes suppressed. Heart feeble; pulse rapid and feeble or imperceptible; cramps (when the whole alimentary tract is involved), especially in the calves; collapse (in severe cases). In slight cases, recovery is rapid; in severe ones, gradual, passing into fever of remittent type and typhoid character, which may last a week or longer.

Differential Diagnosis.—From epidemic cholera; from choleriform attacks due to uræmia; from peritonitis; from typhlitis; from poisoning by acrid or corrosive substances.

Treatment.—Simple cases, due to irritating food, etc., recover spontaneously or promptly after the use of castor oil or calomel in full doses. In severe cases, hypodermic injection of morphia (gr. $\frac{1}{8}$ to $\frac{1}{4}$) with atropia (gr. $\frac{1}{120}$), repeated if necessary; or morphia (gr. $\frac{1}{4}$ to $\frac{1}{2}$) placed dry upon the tongue. Sinapisms to the epigastrium. Total abstinence from drinks. If collapse approaches, large sinapisms over the abdomen until redness is induced. Hypodermics of brandy or whiskey may be especially serviceable in old persons. Pellets of ice; drinks to be restricted. Iced champagne, carbonic-acid water, and effervescing soda powders. Dilute sulphuric or muriatic acid with tincture of opium in camphor water, two to five drops of each every half-hour to two hours in ice-water. Carbolic acid with bismuth for vomiting; or carbolic acid and tincture of iodine, equal parts, gr. $\frac{1}{2}$ every half-hour. Enemata of starch and laudanum. Calomel, gr. $\frac{1}{12}$ to $\frac{1}{6}$, which may be combined with opium, rhubarb, etc. Chlorodyne *has been much* praised. When the fever has subsided *and pain only* remains, give ipecac in $\frac{1}{4}$-gr. doses, and *increase to 1-gr. doses* three or four times a day.

PRESCRIPTIONS.

℞ Chloroformi .... ʒ ij.
Glycerinæ..... ..... ℥ ij.
Spts. vini rectif.... ..... ℥ ij.
Spts. menth. pip..... ʒ ij.
Ac. hydrocyan. dil..... ʒ ij.
Tinct. capsici..... ... ʒ ij.
Morph. muriat..... gr. viij.
Syrupi.... ..... ℥ iij.
M. Adult dose, one teaspoonful diluted with water, and repeated at proper intervals if necessary.

℞ Olei cajuputi ..... ʒ i.
Spts. chloroformi et
Tinct. cinnamomi..... āā ℥ i.
M. S. A teaspoonful every half-hour in glycerin or syrup and water to relieve vomiting.

℞ Ol. menth. pip..... ʒ i.
Alcoholis fort..... fl. ℥ i.
Chloroformi purif. ..... ♁ ij.
Solve et adde
Tinct. opii..... fl. ʒ iij.
Vini ipecac..... . fl. ℥ i.
Tinct. valerian..... fl. ℥ iss.
M. Dose: One tablespoonful for adults.

℞ Plumbi acetatis..... grs. viij.
Morphiæ acetatis..... gr. i.
Aquæ camphoræ..... ℥ i.
M. et S. Teaspoonful every fifteen minutes, or immediately after vomiting if rejected. Shake the bottle before using the mixture.

CHOREA.

Synonyms.—St. Vitus' dance; St. Guy's dance; St. John's dance.

Definition.—A neurosis characterized by lack of harmony, or inco-ordinate twitchings or jerks of certain muscles or certain groups of muscles, sometimes spontaneous in origin, at other times excited by voluntary impulse in attempting to perform definite movements.

Etiology.—Obscure. Neurotic predisposition; rheumatism; scarlatina; fright; over-fatigue; mental excitement; anæmia; imitation; injury; reflex irritation (worms); painful second dentition; masturbation; pregnancy. May occur at any age; rare under six, most frequent between 10 and 15 years; female sex more liable (3 : 1). It has been claimed that there are two forms: one entirely functional, the other organic.

Symptoms.—Restlessness or fidgetiness; irregular jerking movements of the muscles of the face; awkward gait; irregular jactitations; all the voluntary muscles may be in more or less active movements; the head, the shoulder, and sometimes the trunk are moved in various directions; tongue may be quickly protruded, coiled, drawn in, etc.: *voluntary acts* performed with difficulty, in severe cases *impossible; shoulders* jerked up and down; arms thrown *about, etc. The* movements may be unilateral—hemi-*chorea. Respirations* infrequent and irregular; cardiac

; articulation indistinct and jerky, may be impos-
rt's action tumultuous and irregular. Walking,
inking, and sleeping are more or less interfered
rule, the choreic movements are suspended during
ome paresis usually exists. Sensibility increased,
at the onset of severe attacks. Spine sensitive to
cervical and upper dorsal regions). The attacks
riable duration, develop gradually, reach their
two or three weeks, remain stationary for a time,
subside. In severe cases, the limbs and body are
th violence, and any voluntary act cannot be per-

ential Diagnosis.—From multiple sclerosis;
lysis agitans.

ment.—Remove all sources of irritation; atten-
giene and digestion; bowels to be kept open; se-
d sleep by chloral and morphia, with rest in a
room. For anæmia, iron, lactophosphate of lime,
hnia (?). Numerous remedies have been recomen-
enic (Fowler's solution, gtt. iij.-iv. t. i. d.) in
increasing doses (has been used hypodermically
l results); prussiate of iron; oxide of zinc; strychnia
d with care), gr. $\frac{1}{40}$ once daily, very gradually in-
opium, maintaining slight narcotism for several
phate of zinc; sulphate of manganese; canabis in-
icifuga; conium; hyoscyamin; valerian; asafœtida;
potassium bromide; calabar bean (fl. ʒ ss. of the
. i. d., or gr. i.-v. of the powder); ether spray to
; general faradization; hydrotheraphy, etc. In
ses, hypodermic injections of morphia, chloral
anæsthetics to secure sleep and prevent exhaustion
tinued movements. Stomach tube, to supply

COLIC, INTESTINAL.

ition.—A spasmodic pain referable to the abdo-
e Enteralgia.)

gy.—A frequent cause is indigestion. Sometimes
is very obscure. In some cases, the colic occurs
vice or *oftener yearly, for* several years, and then
tirely and without assignable cause or curative

A griping pain, frequently
m, is a characteristic symptom.
greater or less duration and
n is so severe that the patient
endurance and general vigor
bdomen with the hands, bend
in perspiration, and even
the agony. Wind is he
frequent symptom is an
n, but the effort is usua
, and finally copious sto
lief. The pain may be
ations; or during the
patient may be entirel
a rule, no fever.

Diagnosis.—From
bstruction with stran
a colicky pains are lial
abdominal pain whicl
rious disease affecting
inal meningitis, etc.);
in exceptional cases,
a.

In a fair proportion
mptly either to placi
a or to a tablespoon
cated in a tumbler of
ic injections of m
ions. Carminatives,
peppermint, whiskey
h paregoric may be
mild cases. A gentl
n has been subdued
keep the bowels ope
orygmus:

PRESCRIPTION.

pulv. camph.,
" capsici,
" zingiberis .....
t div. in pil. No. vi.
a.

CONGESTION, CEREBRAL.

Synonym.—Hyperæmia of the brain.

Definition.—Increased quantity of blood in the brain; it may be active (arterial) or passive (venous).

Etiology.—*Active:* General plethora; organic diseases of the heart (hypertrophy and valvular lesions); local irritation; vasomotor paralysis; excessive mental labor; violent emotions; sunstroke; alcohol and other poisons; extreme heat and cold; lesions of the digestive organs; opium eating; interference with the arterial or capillary circulation (atheromatous changes). *Passive:* Heart and lung affections; coughing; straining; hanging the head downward; pressure upon the veins, as by tumors or strangulation of the neck. The existence of the affection is doubted by good authorities.

Symptoms.—Pain in the head, with a sense of fulness, heat, or heaviness; vertigo; redness of the face and conjunctiva; dulled intellect; impaired memory; drowsiness; disturbed sleep or wakefulness; photophobia; iridic colors or specks before the eyes; sometimes double or impaired vision; partial deafness and tinnitus; restlessness; twitchings; temporary pains in the limbs and uncertain gait; increased energy of cardiac action; throbbing of carotids and temporal arteries. The symptoms are increased by a full meal, by exertion, and by the recumbent position. Sometimes the symptoms are those of an apoplectic attack (congestive apoplexy): Onset sudden; coma (usually incomplete); partial bilateral motor paralysis; rarely hemiplegia; no stertor; pulse slow and full; head and face show signs of hyperæmia; restoration is usually rapid and complete, though mental confusion, even hallucinations, and impaired sensations, disturbed sleep, dread of places, etc., may remain for some time. There may be epileptiform seizures and delirium. The sensibility of the limbs may be dulled, and there may be slight paresis, mental depression, anxiety, weak, deficient judgment and will-force.

Differential Diagnosis.—From delirium tremens; from epilepsy; from apoplexy; from stomachal vertigo; from cerebral anæmia; from lithæmia; from renal disease; from eye-strain; from cardiac disease; from melancholia.

Treatment.—*Remove the cause, if possible. In the active form, the head should be elevated and ice applied: hot mustard foot-bath;* a brisk purgative; veratrum viride

aconite, ergot or potasium bromide to lower the blood pressure. Diet to be light—chiefly fruit and vegetables; all excitement should be avoided; alcoholics, tea, and coffee to be interdicted. "Light mental occupation is preferable to entire disuse of the faculties." In severe cases, absolute quiet; ice-bags to the vertex or occiput; leeches to the mastoids. For the insomnia (when organic disease is not present), half-baths in the evening with affusions to the back and head. Light supper.

PRESCRIPTION.

℞ Sodii bromidi ..... ʒ i.
Pepsin. sacharat ..... ʒ iij.
Lig. carb. pulv ..... ʒ ss.
Tinct. digitalis ..... fl. ʒ ss.
Ext. ergot. fld.,
Acid. phosphor. dil.... āā fl. ʒ ij.
M. S. Teaspoonful t. i. d. before meals in a third of a glass of water. Ice to the neck five minutes upon rising and going to bed.

CONGESTION, PULMONARY.

Synonyms.—Hyperæmia of the lungs; hypostatic congestion; splenization; brown or pigment induration.

Definition.—Engorgement of the capillaries of the lungs. (Splenization is also characterized by interstitial œdema.) It may be active (arterial) or passive (venous). The brown or pigment induration means more than simple engorgement.

Etiology.—*Active:* Increased power of the heart's action, due to transient causes (violent exercise) or hypertrophy of the right ventricle; inhalation of stimulant (air surcharged with oxygen) or irritant vapors, or air too much rarefied (air at high elevations).

Passive: Mitral lesions; feebleness of the heart's action due to dilatation or fatty degeneration; maintenance of the body in one position for a long time (hypostatic congestion).

Symptoms.—Increased frequency of respiration; dyspnœa, cough; blood-stained, copious, *watery* expectoration.

Physical Signs.—There may be dulness on percussion; diminished intensity of respiratory murmur; crepitant and *mucous râles* (when œdema accompanies).

[redacted]

Differential Diagnosis.—From spasmodic asthma; from pulmonary œdema.

Treatment.—Dry cups (perhaps wet) to the chest; revulsives; steam inhalations; cardiac sedatives (in active). If of sudden occurrence, full doses of ergot. In hypostatic congestion, digitalis, alcoholics, good alimentation; frequent change of position; Convallaria, Caffein.

CONGESTION, RENAL.

Synonyms.—Hyperæmia of the kidneys; catarrhal nephritis (first stage).

Definition.—An increased amount of blood in the kidneys. It may be active (arterial) or passive (venous).

Etiology.—*Active:* The ingestion or external application of irritants, such as cantharides, mustard, turpentine, copaiba, chlorate and nitrate of potassium, carbolic acid; exposure to cold; peripheral nervous irritation; vasomotor paralysis; diabetes; cholæmia.

Passive: General venous congestion in cardiac and pulmonary diseases; pressure on the ascending vena cava above the renal veins (frequent); thrombosis of the renal veins.

Symptoms.—*Active:* Pain (not common), radiating along the ureters, into the hips, bladder, and genitals; constant urgent desire to urinate; urine scanty and high-colored, increased in specific gravity, usually stained with blood, may contain casts, albumen, and some renal epithelium. These symptoms may be only moderately developed.

Passive: The symptoms are usually masked by those of the primary disease. The urine is scanty, darker than the normal, of increased specific gravity (1025–1035), slightly albuminous, usually contains some red blood-corpuscles, a few hyaline casts and epithelial cells, deposits an abundant sediment of urates. There may be difficult respiration and cyanosis. Dropsy may be general or confined to the lower extremities and is usually an early symptom to attract attention to the urine.

Treatment.—*Active:* Remove the irritant; rest in bed; diluent and demulcent drinks; temperature of room, 75 to 80° F.; camphor, *gr. j.*–*iij.* every four hours; dry cupping *over the loins freely; hot* poultices; active purgation (saline *preferable).*

Passive: Treat the primary affection—digitalis; quin

and iron; hydragogue cathartics; warm and vapor baths, etc. Dry cups to the lumbar region when due to pregnancy. Change in position of patient to remove pressure.

CONGESTION, SPINAL.

Synonym.—Spinal hyperæmia.

Definition.—An increased amount of blood in the cord and its meninges. The hyperæmia may be active (arterial) or passive (venous).

Etiology.—Incipient inflammation; over-exertion (protracted walking or standing, venereal excesses); some poisons (strychnia, picrotoxine, amyl nitrite, alcohol); arrest of habitual discharges; exposure to cold while heated; variola; typhoid fever; intermittent fever. Falls from a height; railroad injury (traumatic concussion); general irritation of the nervous system. Obstructive disease of the heart and lungs; cirrhosis of the liver; abdominal tumors.

Symptoms.—The invasion, in a large proportion of cases, is sudden. Dull pain along the spine, increased by standing or lying upon the back, radiating through the hip and thighs; heaviness or stiffness, pain in the arms or legs, with tingling and numbness, sensation as if ants were crawling over the skin or as if being pricked with pins or needles; sometimes hyperæsthesia, at other times partial loss of tactile sensation; muscular twitchings; reflex excitability usually increased; pressure does not aggravate the pain; partial or complete loss of power in the upper or lower limbs or both. Retention or incontinence of urine; sometimes erections. Constipation or involuntary discharges from the bowels. Bed-sores may, but seldom do occur.

Differential Diagnosis.—From myelitis; from spinal meningitis; from acute spinal paralysis (myelitis of the anterior gray cornua); from spinal hemorrhage; from spinal anæmia; from hysteria.

Treatment.—Dorsal decubitus to be avoided; dry or wet cups to the spine; spinal ice-bag; stimulating foot-baths; leeches to the anus or vulva; an active purgative (croton oil according to age of patient); pilocarpine (if due to arrested perspiration); galvanism; hot douche to the spine every four hours. Internally, in the active form, tincture of aconite root *gtt ij* every two hours; infusion of digitalis, ℥ss. *every four hours*; fluid extract of gelsemium, gtt. v. every

four hours. In the passive form, digitalis; fluid extract of ergot, ʒ i.-ij. every four hours. Remove the cause if possible. In the more chronic form, electricity may be serviceable.

CORYZA.

Definition.—Inflammation of the nasal mucous membrane. It may be acute or chronic.

Acute Coryza.

Synonyms.—Acute cold in the head; acute nasal catarrh; acute rhinitis; acute rhinorrhœa.

Etiology.—May occur sporadically or epidemically; contagious (?); is not inoculable; predisposition; sudden cooling of the surface of the body after being heated (taking cold); irritants affecting the nose directly (ipecac, warm milk, iodine, etc.); inhalation of acrid gases, dust, extreme cold, etc.; is a symptom of the invasion or early stage of several diseases, as measles, influenza, typhus fever, etc.; may follow pharyngitis, conjunctivitis, facial erysipelas, impetigo, eczema, syphilis; occurs most frequently in nurslings and early childhood, next in the middle period of life; the coryza of the new-born is produced by infection of the nasal mucous membrane with the vaginal secretions during parturition (probably inoculable).

Symptoms.—Lassitude; chilliness; loss of appetite; fever; sense of weight and pressure in the head, especially the forehead; muscular soreness; prickling and dryness of the nose; sense of stuffiness; difficulty in nasal respiration; inclination to sneeze; increased, sometimes copious secretion from the mucous membrane, first watery, then mucous, and later muco-purulent and may be fœtid; obtuseness of smell and taste; peculiar nasal voice; running from the eyes; external skin of the nose red, swollen, perhaps excoriated; singing in the ears; difficulty of hearing; sometimes neuralgia of the fifth pair; swelling of the cervical lymphatic glands; there may be sore throat, laryngitis and bronchitis. The disease usually lasts from four to seven days, and generally terminates in resolution; rarely by suppuration; sometimes declines into a chronic coryza.

Treatment.—It may be aborted within the first twenty-four hours, perhaps, by moderately large doses of alcohol, *opium, quinia with* morphia, carbonate of ammonia [illegible]

x.-xx.), tincture of the chloride of iron (♏ xx.), tincture of guaiacum, chlorate of ammonium, tincture of belladonna (♏ xx.). Administer one, or a combination of one or more of these drugs on going to bed, and after a stimulating foot-bath or a general hot bath. If abortive measures do not succeed or cannot be applied, diaphoretics and anodynes will hasten resolution. Warm (copiously) drinks (various hot teas); tincture of aconite in one-quarter-drop doses every hour; Dover's powder at bed time; nitrate of potassium; sprays of carbonate and bicarbonate of sodium (gr. ij.-xx. in ℥ i.); chloride of ammonium (gr. v.-x. in ℥ i.); carbolic acid; vaseline; inhalation of the vapor of carbonate of ammonia, iodine, camphor, carbolic acid, with or without caustic ammonia. Diet plain and nutritious, avoid exposure. Keep the nasal passages of infants pervious by syringing or rotary motion of a feather of camel's-hair pencil, so that they can take nourishment. Total abstinence from liquids is said to be highly successful in acute coryza. To relieve sneezing, snuff one-sixth or one-fourth of a grain of powdered opium.

PRESCRIPTIONS.

℞ Acid. carbolic ..... grs. lxxx.
Alcohol ..... fl. ℥ ss.
Aquæ ammon. ..... ♏ lxxx.
Aquæ ..... ♏ cliv.
M. S. Drop a few drops in a cone of blotting paper and inhale (Brand's remedy).

℞ Bromin ..... gr. v.
Potassii bromidi ..... gr. x.
Aquæ ..... ℥ ij.
M. S. Inhale the vapor from a few drops put on a sponge or blotting paper.

℞ Morph. hydrochlor ..... gr. ij.
Bismuth. subnit ..... ʒ vi.
Pulv. acaciæ ..... ʒ ij
M. S. Use one-quarter to one-half in the twenty-four hours. Ferrier's snuff.

CHRONIC CORYZA.

Synonyms.—Chronic nasal catarrh; rhinitis chronica; fœtid coryza or ozæna; chronic rhinorrhœa.

Etiology.—Occurs idiopathically (chronic from the start); occurs in connection with scrofula and syphilis; result of repeated attacks of acute coryza; cold damp climates; *frequent change* of temperature; frequently associated with *chronic pharyngitis*, enlarged tonsils, chronic laryngitis, *and bronchitis*; also with caries of bones, ulcerations, foreign *bodies and abnormal* growths in the nose (deflected septum,

etc.); may arise by communication from a neighboring organ.

Symptoms.—Chronic impediment to nasal respiration, with more or less mucous discharge from pharynx or nostrils; sometimes the secretion is slight ("dry catarrh"), at other times abundant; the secretion is almost entirely purulent; tendency to form crusts (which may contain blood, be of a greenish color, etc.) of varying size (sometimes immense); the secretion undergoes decomposition and produces a peculiar stench (offensive—this complication is also called ozæna); the fœtid coryza occurs most frequently with caries of the nasal bones, ulcerations, etc.; offensive breath (patients may perceive the smell themselves); in very many cases, the sense of smell is either destroyed or seriously interfered with; dense clumps of inspissated mucus are drawn into the throat by forced nasal inspiration and expectorated.

Complications.—Tendency to acute exacerbations and to ulcerative processes; formation of concretions; hyperplasia of the mucous membrane and formation of polypoid excrescences; involving neighboring parts (antrum, etc.); the periosteum and perichondrium may (not often) become involved; swelling of the cervical lymphatic glands.

Treatment.—Direct attention to constitutional dyscrasia. Cleanse the parts, loosen the secretions, hasten their removal, and prevent their retention. Wash the nasal passages anteriorly and posteriorly with warm water solution of common salt, or the phosphate of sodium and ammonium, or the carbonate of sodium and potassium (one drachm of either to the pint of water). The forceps, hair pencil, cotton mop, or soft sponge may be used to remove discharges within easy reach. Cleanse the parts *thoroughly*, and then apply sprays, ointments, or powders composed of various substances, such as benzoin, iodoform, iodine, bismuth, zinc, borax, lead, copper, alum, hydrastin, chloride of ammonium, oil of white pine, nitrate of silver, glacial acetic acid, carbolic acid, potassium permanganate, chlorinated lime or soda, etc. Astringents are indicated only when there is swelling of the mucous membrane with increased secretion. Circumscribed hyperplasia may be treated with caustics, the galvano-cautery; pedunculated masses should be removed by mechanical means (Jarvis's snare, the écraseur, galvano-cautery, etc.).

PRESCRIPTIONS.

℞ Carbon. animal....gr. xv. to lx.
Cinchonæ,
Myrrhæ .....āā gr. xl.
Caryophyll.....gr. vi. to x.
M. ft. pulv. S. Take a pinch every hour for fœtid coryza.

℞ Carbon. animal.,
Caryophyll.....āā ʒ ss.
M. ft. pulv. S. Take as snuff p. r. n. for fœtid coryza.

℞ Acid. tannic.....ʒ i.
Iodoform.....gr. iv.
M. Insufflate after cleansing the passages.

℞ Acid. carbol.....gr. i.
Sodii biborat.,
Sodii bicarb .....āā gr. ij.
Glycerin .....fl. ʒ i.
Aquæ..... ..... ad fl. ℥ i.
M. Dobbell's solution. Local application. [See chronic laryngitis.]

PURULENT CORYZA.

Etiology.—Gonorrhœa; blennorrhœal secretion of the vagina; occurs with scarlet fever, variola, diphtheria; after burns and cauterizations of the mucous membranes; extension from neighboring organs (conjunctiva, pharynx); from unknown causes.

It is usually a disease of considerable duration, and must be treated upon general principles. Cleanse the parts and apply a solution containing one grain of carbolic acid to one ounce of lime-water.

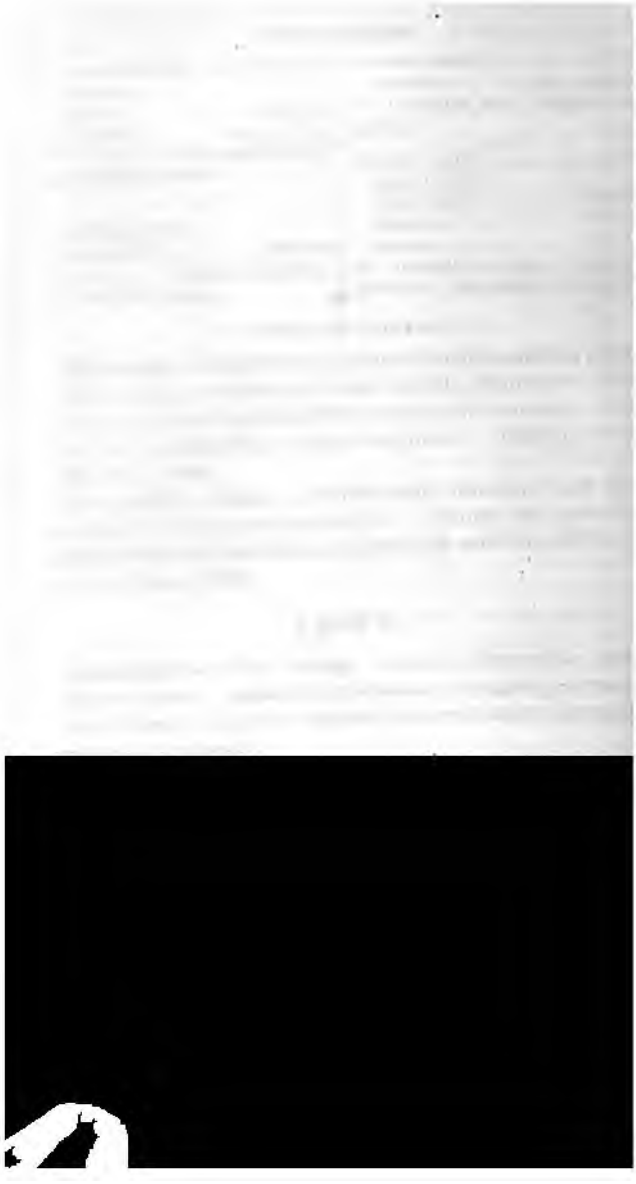
CROUP.

Synonyms.—True croup; croupous laryngitis; membranous croup; pseudo-membranous laryngitis; laryngitis with fibrinous exudation; plastic or membranous laryngitis; cynanche trachealis.

Definition.—A croupous inflammation of the mucous membrane of the larynx, which may extend downward or upward. It is regarded by many as identical with diphtheria, or diphtheritic croup.

Etiology.—It occurs in adults as the result of traumatic causes (inhalation of steam or hot air, etc.). It occurs in childhood as an idiopathic affection, with measles, smallpox, scarlatina, etc., and most frequently between two and and seven years. Heredity; a cold, humid, changeable climate; spring and fall seasons; unequal temperature of the surface due to insufficient clothing.

Symptoms.—At first, those of simple acute laryngitis—hoarse and barking cough ("croup cough"); hoarseness or huskiness of the voice (high-pitched and may be extinguished); moderate fever; restlessness; thirst; anorexia.



Progressive obstructed respiration; laryngeal spasm. Later, distressing dyspnœa (sometimes not apparent by efforts of the patient to overcome the obstruction); stridulous, abortive cough; voice or cry reduced to a husky whisper. Albumen may be present in the urine. If life be prolonged, the cough finally becomes loose; portions of false membrane are expectorated from time to time; dyspnœa decreases, and recovery (in the great minority of cases) may ensue. Otherwise, convulsions; coma; death by slow apnœa, or carbonic acid poisoning. Some cases run their course within twenty-four hours.

Physical Signs.—On inspection, the fauces are red, sometimes dusky; and if the inflammation has extended to the pharynx, small patches of thin, pellicular exudation of grayish-yellow color may be seen; later, they coalesce and form a false membrane, of varying thickness, of a yellowish-gray or ash color. Enlargement of the cervical and submaxillary glands may exist. Contraction of the lower part of the chest; sinking in of the soft parts above the clavicles and sternum; face congested or cyanosed; expression anxious.

Complications.—Œdema glottidis; croupous pneumonia; œdema of the lungs; capillary bronchitis.

Differential Diagnosis.—From laryngismus stridulus; from simple acute or subacute laryngitis; from diphtheria; from whooping cough; from capillary bronchitis.

Treatment.—*General:* Confinement in bed in a warm (75 to 85° F.) well-ventilated room, with the air constantly charged with steam. Occasional prompt emetics—apomorphia, powdered alum, sulphate of zinc, or subsulphate of mercury may be required. Anodynes to allay spasm—belladonna, the bromides, chloral. Jaborandi or pilocarpine. Quinia in full doses; ammonium bromide in full doses; potassium chlorate. Calomel to keep the bowels soluble; a full dose given at the commencement produces marked benefit in some cases. Alcoholic stimulants.

Local: Inhalation, or introduction by a large soft probang, of lime-water, lactic acid, potassium chlorate, tincture of chloride of iron, bromine, or potassium or ammonium bromide. The local application of nitrate of silver, ʒ i. in ℥ i. (?). The neck should be enveloped in a poultice or the hot or cold dressing. Continuous and increasing dyspnœa

with gradual asphyxia indicate tracheotomy. (See Laryngitis and Diphtheria.)

DEMENTIA PARALYTICA.

Synonyms.—Progressive general paralysis; general cerebral paralysis of the insane; diffused interstitial cerebritis.

Definition.—Atrophy of the brain accompanied by a peculiar form of mental derangement and general paralysis.

Etiology.—Heredity; venereal excesses; overwork; alcoholic abuse; painful moral shocks. Occurs more frequently in the male sex, during the age of from twenty-five to forty-five.

Symptoms.—Onset gradual. Changes in character and disposition; excessive anxiety concerning matters of little or no importance; irritability; headache, worse in the morning; memory of recent events becomes impaired; ideas and actions become extravagant (lavish expenditures, violations of decorum and delicacy, thefts, etc.); absent-mindedness; patients talk to themselves; tongue is tremulous when protruded; the muscles of the face and lips begin to tremble; tremors, or fibrillary contractions in various muscular groups, especially the tongue, facial and brachial muscles, is an important symptom; the saliva dribbles; speech becomes tremulous, thick, and hesitating; pupils unequal or small; voice becomes nasal and guttural; labials are pronounced with difficulty; imperfection in the pronunciation of long words especially; insane delusions are frequent (supreme self-satisfaction), but sometimes the form of insanity is that of melancholia, or the two forms may alternate. General paralysis usually begins in the lower extremities: Shambling, straddling, irregular, uncertain, tottering gait; patient stands with legs widely separated; is liable to fall and unable to rise unless assisted; the handwriting becomes angular, irregular, and trembling, and finally impossible; patellar tendon-reflex may be increased; general sensibility more or less blunted; disorders of special senses—double vision, impaired sight and loss of vision, inequality in the size of the pupils, there may be retention or incontinence of urine and fæces; electro-muscular excitability unimpaired. In the advanced disease, the para-

lysis increases, patient becomes unable to walk or stand; involuntary evacuations from bladder and bowels; difficulty of swallowing; paralysis of respiratory muscles. Apoplectic or epileptiform attacks, followed by transient hemiplegia, are of frequent occurrence. Death may occur in coma, from apnœa, from impaction of food in the pharynx or larynx, from asthenia, or from some intercurrent affections.

Differential Diagnosis.—From posterior spinal sclerosis; from senile dementia; from progressive muscular atrophy.

Treatment.—Is chiefly palliative and symptomatic. Rest of body and mind; careful alimentation; lactophosphate of lime and cod-liver oil; quinia and morphia; for restlessness, hyoscyamin hypodermically (gr. $\frac{1}{30}$–$\frac{1}{10}$) or chloral and morphia.

DENGUE.

Synonyms.—Dandy fever; breakbone fever; neuralgic fever; scarlatina rheumatica (?).

Definition.—An affection, characterized by high fever, intense arthritic pains, a peculiar rash, and a tendency to be continued for a few weeks by intermittent attacks of short duration.

Etiology.—Obscure. The disease appears to be chiefly confined to tropical and subtropical countries. Both sexes and all ages are equally liable to be attacked. It prevails epidemically in hot climates; contagiousness strongly doubted; can be conveyed by human intercourse.

Symptoms.—Incubation lasts from twenty-four hours to ten days. Invasion rather sudden: chilliness or rigors, alternating with flashes of heat; debility; uneasiness; dryness of the skin; violent pains in the muscles of the back and limbs and in some of the joints which are somewhat swollen and present changes of rheumatic character; severe frontal headache with vertigo; accelerated respiration; gastro-intestinal disturbance; furred tongue; convulsions in children. Later, high fever (105° F. or more); pulse 120 to 140; sometimes a rash or papular eruption. Lymphatic glands and testicles may be painful and enlarged; sometimes epistaxis; salivation; ophthalmia; jaundice. The symptoms, excepting debility and painful sensations, subside in from one-half to four days. Relapse, or severe headache, in from two

the body. Glycosuria does not necessarily indicate the presence of diabetes, and may be acute or intermittent and transient.

Etiology.—Is unknown. Occurs as the result of defective assimilation or excessive formation. Lesions of the pancreas. Exciting causes are said to be: Exposure to wet and cold; drinking cold water when heated; abuse of alcohol, sugar, and starchy substances; mental strain; injuries to the head, spine, etc.; some acute febrile disease.

Predisposing causes: Adult age (30 to 50); heredity.

Symptoms.—Micturition becomes progressively frequent; urine increased in quantity and irritating in quality (inflammation or excoriation of urinary meatus; pruritus vulvæ); pain and tenderness over the kidneys. Sexual function impaired. Urine pale and watery, of sweet taste and odor, and high specific gravity (1030–1060 or more); it ferments rapidly; yields sugar to the usual tests. Great thirst; voracious appetite or loss of appetite; tongue red, clean, cracked and dry; rarely moist and furred. Gums spongy; the teeth are rapidly destroyed. The breath has a sweet, peculiar odor. Dyspeptic symptoms. Bowels constipated; stools pale, dry, and spongy; diarrhœa or dysentery towards the close.

Extreme emaciation; skin dry, harsh, and scurfy; distressed countenance. Weakness; chilliness; disinclination for physical or mental exertion; soreness in the limbs; slight œdema of the legs; occasionally dropsy of other parts; temperature often reduced; impotence; dimness of vision. The blood and various secretions contain sugar.

Complications.—Pulmonary phthisis; boils and carbuncles; endocarditis; chronic skin affections; gradual permanent blindness from atrophy of the retina or from soft cataract; gangrene of the fingers, toes, genitals, etc.; Bright's disease.

Differential Diagnosis.—Persisting glycosuria renders diagnosis positive.

Treatment.—A cure, in a great majority of cases, is not to be expected. The statement that the disease is always incurable is unwarrantable. In many cases, the disease may be kept in abeyance. Regulation of the diet; starchy foods and those containing sugar should be prohibited. Meat (*excluding* liver), poultry, game and fish should be the main *diet. Gluten* bread and bread made from finely ground

bran. Eggs, butter, cheese, broths, soup, and jelly are admissible. Skimmed milk, three to four pints daily, which may be mixed with lime-water or soda-water. Alcoholic stimulants (brandy and whiskey) are allowable in small quantities. The quantity of liquids may be moderated, but must not be suddenly cut off. (Some allow the patients to drink water without restriction.) Coffee and tea. Thirst may be relieved by iced water or by acid drinks (solution of phosphoric acid or of cream of tartar); Carlsbad and Vichy water. The change in diet should be made gradually, and the articles permitted should be varied frequently. Flannel should be worn next the skin; two to three warm baths per week; sea air and sea bathing. Powdered opium, gr. ss. t. i. d., increased gradually to six or seven grains at each dose (liable to impair digestion and form the opium habit). Codeia, ¼ of a grain three times a day, gradually increased to 1 grain t. i. d. Sulphide of calcium (⅛ to ½ gr. t. i. d.) is very useful in many cases. Salicylic acid if there is evidence of intestinal digestion. Brewer's yeast, tablespoonful three or four times a day. Fluid extract of ergot, one drachm four times a day. Sulphate of quinia, 7 or 8 grains daily. Strychnia or nux vomica is generally beneficial. The complete efficacy of the numerous drugs recommended has not been established. The various symptoms must be treated on general principles. Tincture of iron and other tonics are of service. Cod-liver oil is valuable in many cases.

DIARRHŒA.

Definition.—A number of loose, partly fecal evacuations in the course of twenty-four hours, with or without pain. (Reference is made here chiefly to diarrhœa without intestinal lesion.)

Etiology.—Susceptibility with reference to water, certain kinds of food; sometimes occurs immediately after taking a meal; occurs with Bright's disease and phthisis and without intestinal lesion; constipation; cutting of teeth in children; certain nervous influences; may occur while attempting to cure the opium habit; may succeed dysentery; attends excess in the use of alcoholic drinks; excessive secretion of bile (scalding passages).

Treatment.—The etiology affords the prominent indications for treatment. Temporizing measures may some-

times be required, and nearly all of these have for their base some preparation of opium. An opiate with a gentle cathartic is usually sufficient to cure a large proportion of these cases. A very satisfactory plan is to administer three to five grains of blue mass either combined with rhubarb or followed by a saline cathartic, and after the bowels have been emptied, paregoric, perhaps combined with some astringent vegetable infusion, like that of blackberry root or red raspberry leaves, usually suffices to arrest diarrhœal discharges. More active measure may be demanded, such as opium, bismuth, vegetable or mineral astringents, etc. (see Cholera, Cholera infantum, Cholera morbus, Dysentery).

DIPHTHERIA.

Synonyms.—Cynanche maligna vel contagiosa; angina maligna vel gangrænosa; morbus suffocans vel strangulatorius; garrotillo; malignant sore throat; epidemic croup; diphtheritis, etc.

Definition.—An acute general disease, highly infectious, frequently epidemic, the lesion of which consists of a croupous inflammation of mucous membranes.

Etiology.—Contagion. The character of the infectious principle is still obscure. Inoculation.

Predisposing causes: The period of childhood; previous occurrence of the disease; unsanitary conditions; individual and family susceptibility; bodily fatigue or exhaustion; nervous excitability; attacks of faucial catarrh, measles, scarlatina, small-pox, typhus, and puerperal fever.

Symptoms.—The disease is usually ushered in by general, followed by local symptoms, referable to the throat or other parts which are involved.

The period of incubation ranges from two to four days (may vary from thirty hours to eight days, and in exceptional cases may be two weeks).

Invasion is gradual; malaise, languor, weakness, depression; with chilliness, loss of appetite, nausea and vomiting, diarrhœa, headache, tinnitus, drowsiness, marked febrile movement; stiffness of neck, tenderness at the angles of the jaw, or slight sore throat. The tongue becomes covered with a thick white coating which is very adherent, extending to the tip.

In the developed disease, the symptoms vary in character

and severity; the throat symptoms having no definite relation to the gravity of the constitutional disorder (the opposite view is held by some authors).

In a typical case, the local symptoms are mainly referable to the throat; soreness or pain (this may be entirely absent), especially on swallowing; hawking. The fauces are red and swollen, covered more or less with the diphtheritic deposit; at first small specks, speedily extending and coalescing into patches of variable thickness (successive layers may form underneath the first). The color is gray, white, or yellowish (may be dark-red, brownish, or blackish); its consistence ranges from "cream to wash-leather." When removed, it usually discloses a raw bleeding surface, sometimes an ulcer, which is speedily covered by a fresh deposit that destroys the mucous membrane. The exudation may spread to the mouth, lips, nose, Eustachian tube, conjunctiva, larynx, trachea, or bronchi; rarely to the œsophagus, stomach, intestines, and gall-bladder. It has been observed over the vulva, vagina, prepuce, and rectum. Any raw surface may be implicated.

The tonsils and uvula are enlarged, rendering examination difficult. Offensive breath. In bad cases, there may be extensive ulceration or sloughing. Fragments of the exudation (false membrane) are frequently coughed up; sometimes, if ulceration or gangrene has set in, expectoration of offensive material. Submaxillary and cervical glands enlarged and tender; structures of the neck more or less tumefied. If the nares are implicated: discharge, often sanious and offensive. If the larynx is involved: hoarseness or aphonia, hoarse croupy cough, dyspnœa (often urgent); breathing noisy, stridulous, paroxysmal. If the bronchi are involved, breathing is still more embarrassed If other parts are involved, there are corresponding local symptoms.

The general symptoms are: moderate fever (temperature may rise to 103–107° F), subjective feeling of illness, weakness, depression, often a foreboding of death. Pulse may be slightly or greatly accelerated. In bad cases, the symptoms are asthenic or typhoid, either from the beginning or in the course of the disease. Diarrhœa is not uncommon. If the respiratory passages are involved, cyanosis, culminating sometimes in asphyxia. Urine febrile, usually contains albumen (some authors say always), may contain blood and casts.

Clinical Varieties (merely conventional).—*Mild:* All the symptoms are mild; temperature occasionally high. No albuminuria. The exudation is often extensive. Recovery rapid and complete. No sequelæ. (An apparently mild case may be followed by grave sequelæ.)

Inflammatory: After premonitory symptoms, high fever, illness, and weakness. Pulse feeble. Throat symptoms severe; pieces of false membrane may be coughed up. Throat may ulcerate or slough. Larynx and respiratory tract are liable to be involved. Glands around neck enlarged. Urine febrile, albuminous, with granular casts.

Insidious: After hardly perceptible general disturbance and slight sore throat, sudden severe laryngeal symptoms set in and may lead to speedy suffocation.

Nasal: Sanious, often fetid, discharge from the nose, with low fever. Swelling and sometimes excoriation of the upper lip. The throat soon becomes involved; fluid escapes through posterior nares; submaxillary glands swell considerably. Septicæmia and fatal epistaxis may occur. Later, deposit may form on pharynx or larynx; or the symptoms may subside and recovery ensue.

Primary Laryngeal or Croupous: Exudation begins in the larynx, but may spread to the pharynx, air passages, and lungs. Laryngeal symptoms prominent from the first. (This variety is regarded by many authorities as identical with croup or croupous laryngitis, which see.)

Asthenic or Septic: General symptoms of a low type, either from the beginning or in the course of the disease. Illness severe and prostration great; complexion dirty-looking; skin pungent; temperature moderately high (98–100° F.). Pulse frequent or slow, small, weak, irregular, compressible; heart's action enfeebled. Tongue dry and brown; sordes. Finally typhoid symptoms with delirium and low nervous phenomena, and patient sinks. The deposit over throat or larynx may or may not be extensive, but is soft and pulpy; local symptoms not severe.

Complications and Sequelæ.—Albuminuria, often associated with morbid changes in the kidneys, especially in the epithelial lining of the tubes; urine sometimes suppressed. Hemorrhage from the nose, throat, and air passages; purpuric spots on the skin, or an erysipelatous or erythematous rash. Earache, tinnitus, deafness. Pulmonary collapse; lobar and lobular pneumonia; pulmonary

apoplexy. Debility and anæmia. Motor and sensory paralysis which is more or less progressive. (Diffuse myelitis.) Septicæmia; uræmia. Relapses are not uncommon.

Differential Diagnosis.—From acute follicular ulceration of the tonsils; from croup (?); from scarlatinal sore throat; from pharyngitis with abundant secretion.

Treatment.—Supporting. Isolation in a room with a uniform temperature of 65-68° F., the air of which should be impregnated with steam. Strict attention to hygiene, cleanliness, ventilation, and disinfection. Nutritious diet from the first, plenty of milk with lime-water and beef-tea. Cool drinks freely, ice to be sucked frequently. Alcoholics —whiskey or brandy beaten up with eggs, port-wine, iced champagne. If swallowing be difficult, nutrient enemata. A mild aperient daily if required. A saline drink, solution of citrate of potassium (ʒ i. ad O.j.).

Tincture of steel, ♏ xx.-xl every two or three hours, combined with quinine or dilute hydrochloric acid. Quinine alone in large doses. Iodide of potassium (gr. ij.-iv.) with chlorate of potassium (gr. ij. to iij.) every two or three hours. Bromide of ammonium (gr. ij.-xv. every three hours), alone or combined with iodide of ammonium. Antiseptics—sulphite of sodium, gr. xx.-xxx. every two to three hours; sulpho-carbolate of sodium, ℈i. every hour or two (to an adult); sodium benzoate, gr. x.-xv. every hour. A single dose of oil of turpentine—two or three drachms without additional mixture for children from two to seven years—which may be repeated in twenty-four hours. Cyanide of mercury, one to two in 1,000 parts of water, and in teaspoonful doses. For adynamic and typhoid symptoms, ammonia and bark, camphor, ether, musk, etc.

Local treatment of the throat symptoms: gargles (hot water every half-hour), inhalations, or spray, or applications: Liquor sodæ or potassæ, one part; aquæ, 40 or 50 parts, which may be used in combination with lime-water or not, and can be used in a hand or steam atomizer; dilute hydrochloric acid, solution of muriate of quinine, equal parts of tincture of steel or liquor ferri perchloridi and glycerin, solution of subsulphate of iron, solution of salicylic acid or chloral, solution of nitrate of silver, solution of chlorate of potassium with dilute hydrochloric acid, solution of permanganate of potassium (*not* in glycerin), sulphurous acid, solution of phosphate or sulphite or benzoate of sodium,

A combination of the following three:

1. ℞ Tinc. ferri chloridi .... fl. ʒ i.
   Glycerinæ,
   Aquæ dest..... āā fl. ℥ i.

M. S. A teaspoonful of this and of No. 2, alternately every half-hour through the day.

2. ℞ Potassii chlorat..... ʒ ss.
   Glycerinæ .... fl. ℥ ss.
   Aquæ calcis.... .... fl ℥ iiss.

M. S. A teaspoonful of this and of No. 1, alternately every half-hour through the day.

3. Acidi carbolici ..... ♏ xv.
   Aquæ calcis .. .. fl. ℥ vi.

M. S. To be used with a small hand atomizer for several minutes whenever Nos. 1 and 2 are given.

This treatment is continued at night if patient is awake; if asleep, two hours are allowed to intervene.

℞ Pilocarpin muriat..... gr. ½-⅔
   Pepsin..... gr. x-xxij.
   Acid. hydrochlor..... gtt. ij.
   Aquæ destillat..... ℥ viij.

A teaspoonful every hour to a child.

Or,

℞ Pilocarpin. muriat.... gr. ½-¾
   Pepsin..... gr. xxx.
   Acid. hydrochlor..... gtt. iij.
   Aquæ dest..... ℥ viij.

A tablespoonful every hour to an adult. Give a small amount of good wine after each dose.

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℞ Pilocarpin. muriat..... gr. 1/6.
   Pepsin ... . gr. xx.
   Acid. hydrochloric..... gtt. i.
   Aquæ destil..... ..... ℥ iv.

M. S. Dessertspoonful hourly.

DUODENITIS.

Synonym.—Catarrh of the duodenum.

Definition.—A catarrh of the mucous membrane of the duodenum. It may be acute or chronic. The catarrhal process usually extends into the ductus communis choledochus and gives rise to jaundice.

Etiology.—Climatic changes; external irritation; indigestible aliment.

Symptoms.—Constipation; exceptionally diarrhœa; pain in the right hypochondriac and umbilical regions (commonly a prominent symptom); soreness on pressure over the duodenum; digestive disorders; jaundice from third to seventh day; distress at the seat of the affection two or three hours after eating; flatulence. Occipital headache. Stools of pasty consistence, slate color, and fetid. When jaundice is pronounced, loss of appetite, nausea, occasional vomiting. Temperature slightly elevated, and pulse slightly accelerated.

Differential Diagnosis.—From gastric catarrh; from hepatic colic; from diseases of the liver.

Treatment.—*Regulation of* the diet, excluding all *saccharine, starchy, and fatty* constituents. Exclusive milk

diet is best. Phosphate of soda, ʒ i. four times a day; or sulphate of magnesia, bitartrate of potassium, saline laxatives, Carlsbad or Vichy waters, Rochelle salts Quinia, especially if malaria co-exists. Fomentations; counter-irritation after subsidence of early symptoms; opium to relieve pain.

DYSENTERY.

Synonyms.—Flux; bloody flux; ulcerative colitis.

Definition.—A primary inflammation of the lower part of the colon, characterized by colicky pains, tenesmus, stools containing mucus and blood, burning pain caused by the passages, and more or less constitutional disturbance. It occurs in the sporadic, endemic, or epidemic form; some maintain that, in the latter, the disease is propagated by a specific virus.

Etiology.—Sudden arrest of perspiration by exposure to cold and dampness; climatic influences; malaria; irritating food or medicine; unfavorable hygienic conditions; infection (?). One attack predisposes to subsequent ones.

Symptoms.—Onset is sudden in the epidemic form; in the others, is preceded by intestinal catarrh (diarrhœa may not precede); chilliness followed by feverishness; general malaise. Fever (is absent in the mildest cases) of remittent type, with evening exacerbation.

Actual attack: Chills and fever; sometimes rigors; pain along the descending colon and about the sigmoid flexure, increased by pressure. Colicky pains and tenesmus; discharge of mucus, often tinged with blood, occasionally of scybala; exhaustion. Soon the evacuations consist of mucus alone, containing whitish granules (resembling sago-grains). Soon blood appears in the stools; also epithelial débris mixed with the mucus. In severe cases, the amount of blood increases; the pellicular new-membrane and necrosed parts of the mucous membrane may be detected in the stools, which are very fetid. The mucus changes to a puriform fluid, and real hemorrhage may occur. Loss of appetite; furred tongue. Nausea and bilious vomiting occasionally occur, and are constant in severe cases. Strangury; urine scanty, high-colored, and acid. Emaciation; systemic infection from the results of decomposition and gangrene; the anus and neighboring parts become excoriated; bed-sores; facies anxious and pinched; skin dry, harsh, and wrinkled; pulse small

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quick, and feeble. Collapse; hiccough; cold clammy sweat; hands and feet become cold; pulse ceases at the wrist; heart feeble; eyes sunken; voice husky; apathy; mind remains clear until carbonic acid poisoning and stupor set in. The local and constitutional symptoms are more marked in the croupous than in the catarrhal variety, and its duration is longer.

Complications.—Inflammation and abscess of the liver from thrombosis of intestinal veins (?), phlebitis, or absorption of morbific material; purulent collections in the lymphatics at the root of the lungs and elsewhere; peritonitis from perforation or the extension of the ulceration to the peritoneum.

Differential Diagnosis.—From proctitis; from chronic intestinal catarrh; from cancer of the rectum: from hæmorrhoids; from melæna.

Treatment.—Rest in bed. Empty the alimentary canal. Opium to relieve pain. Diet of milk with one-fourth of lime-water; solid food should be avoided. Sulphate or citrate of magnesia with dilute sulphuric acid in laxative doses, before the disintegration of the mucous membrane has begun. Ipecac (after unloading the bowels) in the first stage, ℈i.–ʒi., in bolus or with syrup of orange-peel every four to six hours; castor oil with laudanum in purgative doses. Later, emulsion of almond oil and turpentine with hypodermics of morphia, or opium in some other way. When destruction of the mucous membrane is beginning, corrosive sublimate, sulphate and oxide of zinc, acetate of lead, etc., combined with opium; or Fowler's solution, gtt. i., with deodorized tincture of opium, gtt. v.–xx. every three hours; or sulphate of copper, gr. $\frac{1}{20}$, with morphia, gr. $\frac{1}{8}$–$\frac{1}{12}$, every three hours; or bismuth, ℈i.–ij. every four hours, with carbolic acid; Dover's powder, gr. iv.–v. three or four times a day with full doses of tincture of steel; irrigation with warm water (100°–105° F.), followed by injection of starch and laudanum, or starch and chloral hydrate (gr. v. : ℥i.). After sufficient quiet has been secured by opium, 8 oz. silver nitrate solution has been used (℈i.–ʒi. : ℥i.), injected by a non-corrodible tube passed carefully to the sigmoid flexure; common salt may be injected afterward; weak solutions of the sulphate or the chloride of zinc. Suppositories containing morphia and tannin, *iodoform and opium*, acetate of lead, fluid extract

of ergot, ergotin, etc., may be substituted for the enemata. Externally, the wet pack, ice-bag, hot applications, or turpentine stupes may be employed. If collapse threatens, active stimulation—cognac, beef-juice and brandy, milk punch, egg-nog, etc. If there is malarial, scorbutic, or other morbid condition of the system, the treatment must be modified accordingly. The patient and his bedding should be kept clean. Tonics during convalescence.

Prescriptions.

℞ Ergotinæ aq. ext ..... ℈ i.
Ext. nucis vom..... gr. v.
Ext. opii ..... gr. x.
M. Ft. pil. No. xx. et sig. One every four or six hours. Chronic dysentery.

℞ Infus. rhei ..... ℥ ij.
Potass. bicarb..... ʒ i.
Tinct. cinnamon..... ʒ ij.
Syr. simplicis ..... ʒ vi.
M. S. Teaspoonful every two hours.

℞ Strychniæ sulph..... gr. ¼.
Acid. sulph. dil..... ℥ ss.
Morphiæ sulph..... gr. ij.
Aquæ camph ..... ℥ iiiss.
M. S. Teaspoonful every hour or two hours, well diluted. Epidemic dysentery. Marked depression. Prune juice stools.

℞ Magnesia sulph.,
Tinct. opii camph..... āā ℥ i.
Aquæ..... O. i.
M. S. Wineglassful every two, three, or four hours.

℞ Ferri subsulph..... gr. xl.
Pulv. opii..... grs. xx.
M. Ft. pil. No. xx. et sig. One t. i. d. Chronic dysentery.

℞ Tinct. opii..... gtt. xvi.
Spts. ammon. aromat. ʒ ss. to i.
Bismuth. subnitrat..... ʒ ij.
Syr. simplicis..... ℥ ss.
Mistur. cretæ..... ℥ iss.
M. S. Two teaspoonfuls to a child over one year old, and a tablespoonful or more to an adult every two or three hours after the bowels have been emptied by laxatives.

DYSENTERY, CHRONIC.

Usually the result of the acute affection. In some cases, the disease is chronic from the beginning. If it follows the acute affection, the patient has small passages of blood and mucus which may continue at intervals for months and years. The intervals may be days or weeks in length. The bowels may be loose or constipated; if the entire length of the large intestine is involved, the passages will be loose. If the disease is the result of croupous dysentery, the bloody discharges with mucus will be continued, *but will contain* more blood than is passed in the chronic *dysentery which* follows the catarrhal variety, and here

again the bowels may be loose or constipated. If chronic dysentery follows follicular dysentery, there is usually no blood or mucus in the stools, but they are simply diarrhœal in character.

Emaciation or loss of strength is a marked symptom, whatever may be the origin of the disease. If only a small portion of the intestine is involved, it is possible for the patient to recover, but a considerable length of time is usually required.

Treatment.—It is local and general. Drugs may be applied to the rectum in the form of enemas or suppositories, and a great variety of articles have been used, such as the different preparations of zinc, nitrate of silver, iodoform, bismuth, opium, carbolic acid. Usually with advantage some one of these articles is combined with opium.

The patient should be restricted to a milk diet, but it should not be persisted in if the local and general symptoms do not soon begin to improve. The experience of the patient may be accepted to a great extent in selecting articles of diet. If the ulcers are sufficiently low down, topical applications of nitrate of silver, carbolic acid, etc., may be made. The general condition of the patient is to be improved by the use of mineral acids, quinine, iron, and strychnia. Fresh air in a warm climate is favorable to recovery. Hard cider has contributed to recovery in several cases.

DYSPEPSIA, ATONIC.

Synonym.—Indigestion.

Definition.—Difficult digestion, functional in character.

Etiology.—Heredity; advanced age; imperfect mastication; depressed state of the system from exhausting discharges—hemorrhages, leucorrhœa, profuse suppuration, etc.; bad hygiene; improper and excessive alimentation; spirit drinking; severe mental and physical exertion after eating.

Symptoms.—Sense of weight and uneasiness during digestion, suspended for a time when food is taken. A feeling as if a foreign body were behind the sternum or higher up in the œsophagus. Eructation and pyrosis. Oppression and dyspnœa. Flatulent colic. Intestinal disturbance; *constipation. Feeble* appetite. Slight thirst, ingested *fluid causes distress.* Tongue enlarged, pale, and flabby *showing teeth marks.* Mucous membrane of mouth pa

gums soft and spongy; tonsils enlarged, uvula relaxed; voice husky. Depression; pulse weak, excitable, compressible; palpitation on exertion. Flatulent distention of abdomen. Skin pallid, earthy, moist, clammy; extremities cold. Urine pale, of low specific gravity, loaded with phosphates. Inaptitude for mental exertion, memory and attention impaired; irritability. Drowsiness after meals; restless unrefreshing sleep.

Differential Diagnosis.—From chronic gastric catarrh.

Treatment.—Regulate diet. Milk cure. Gradually add easily digested substances. Give food in small quantity at frequent intervals. Pepsin or lacto-peptine (?) with muriatic acid; pepsin and bismuth with aromatic powder; tincture of nux vomica, strychnia; bitters (calumba) with muriatic acid; pills of carbonate of iron; citrate, malate, or tartrate of iron. Arsenic in small doses, gradually increased. Small quantities of acid wine at dinner. Change of scene for depression.

PRESCRIPTIONS.

℞ Sodii bicarb. ..... ʒ iij.
Acid. hydrochlor. dil..gtt. xlviij.
Tinct. valer ....fl. ℥ i.
Syr. zingiber ....fl. ℥ ij.
M. S. A teaspoonful t. i. d. in water. In torpor of digestion with symptoms of nervous disturbance.

℞ Tinct. cardamom. co.,
Tinct. anisi..... āā fl. ʒ i.
Tinct. aurant. cort.,
Tinct. gentian.,
Aquæ menth. pip .. āā fl. ℥ iss.
Aquæ..... ad fl. ℥ vi.
M. S. Teaspoonful between meals. Stomachic, for loss of appetite.

℞ Quin. sulph ..... . gr. xvi.
Strychniæ sulph .....gr. 1/3.
Acid. muriat. dil .....fl. ʒ iss.
Syr. zingib.....q. s. ad fl. ℥ iv.
M. S. Two teaspoonfuls in water immediately after meals. Same as above.

℞ Sodii bicarb..... ... ʒ ij.
Spts. ammon. aromat.. fl. ʒ ij.
Tinct. zingiber..... fl. ℥ i.
Infus. gent. co..... ad fl. ℥ viij.
M. S. One to two tablespoonfuls t. i. d. for acid eructations.

℞ Sodii bisulphitis ..... ℥ i.
S. gr. xv.-ʒ i. two or three times a day, dissolved in water. An effective antifermentative.

℞ Acid. muriat. dil.....fl. ʒ ss.
Tinct. nucis vom .....fl. ʒ ss.
Inf. gentian. co..q. s. ad fl. ℥ iv.
M. S. A teaspoonful in water after meals. For hepatic disturbance.

℞ Bismuth. subnit..... ʒ iss.
Pepsinæ .... ʒ iss.
Strychniæ sulph..... ...gr. i.
Tinc. cardam. co.
q. s. ad fl. ℥ iv.
M. S. A teaspoonful t. i. d. in water. For hepatic disturbance.

℞ Liq. bismuthi et ammonii
citrat..... ..... ℥ i.
Infus. quassiæ.. ..... ℥ viij.
M. S. Two tablespoonfuls t. i. d., in pyrosis with pain.

ENCEPHALITIS, ACUTE.

Synonyms.—Acute cerebritis; cerebral abscess; abscess of the brain; inflammatory softening and abscess of the brain.

Definition.—A localized suppurative inflammation of the brain substance. It may be primary or secondary.

Etiology.—Prolonged mental effort (?); sunstroke; high temperature; venereal excesses; alcoholism; injury to the head; disease of the nasal fossæ, frontal sinuses, and orbit; caries of the cranial, especially the petrous, bones (otitis media very frequent cause); extension from meningitis; infective emboli in various diseases attended with suppuration.

Symptoms.—Headache, dull or severe; vertigo; tinnitus; double vision; temporary strabismus; affections of speech; partial deafness; numbness and tingling in some members; cutaneous hyperæsthesia; neuralgic pains; sudden muscular cramps; cerebral vomiting; constipation; irritability of bladder; restlessness and vigilance; mental confusion and irritability; general weakness; pulse accelerated; temperature 102–103° F.; apoplectic or epileptiform attacks or convulsions; sometimes delirium. Subsequently, stupor ending in coma; sensations of cold, itching, formication; gradual loss of sensation; heaviness of the limbs; hemiplegia or general paralysis, often with rigidity or tetanic spasms; spasms of the pharynx; involuntary discharge of urine and fæces; retention of urine. If the case does not end fatally, permanent disorder of the mental, sensory, or motor functions remain. In very rare cases, the abscess may discharge externally.

Differential Diagnosis.—From tumor; from cerebral hemorrhage; from meningitis.

Treatment.—In the inflammatory stage, ergot; quinia; liquor barii chloridi ♏ xx. every four hours. When suppuration occurs, quinia in full doses; mild revulsives; tonics; nutritious diet; mental repose; stimulants for depression. Trephining and puncturing the brain have been attended with some success. Complete recovery a very rare termination.

ENDARTERITIS.

Synonyms.—Arteritis; atheromatous arteritis; arterial sclerosis; *endarteritis deformans*; atherosis.

Definition.—Inflammation of the internal coat of the arteries, followed by fatty and calcareous degeneration and, in the smaller arteries especially, marked narrowing of the lumen of the vessel.

Etiology.—Age (rare before forty, very frequent after fifty); male sex; chronic alcoholism; gout; rheumatism; syphilis; lead poisoning (?); functional strain of the arteries in a person having a constitutional predisposition to endarteritis; propagation of a chronic inflammatory process from the endocardium; propagation upward of an endocarditis; habitual excitement of the heart's action.

Symptoms.—In most cases, no marked disturbance in the health. In other cases, impaired memory; vertigo, chiefly in the morning; persistent tendency to early waking with headache which wears off; cramps in the calves of the legs; vague sense of fear as of impending misfortune. Dilatation and hypertrophy of the left ventricle. Diminished specific gravity of the urine. The artery affected is visible, tortuous, hard to the feel like a dense cord or a string of beads, or a rigid tube; tardy pulse; disturbed circulation especially in the fingers and toes; diminution of temperature, numbness, formication; gangrene; œdema in the lower extremities; varicose dilatation of the veins; cerebral hemorrhage; cerebral softening; apoplexy; paralysis, etc.; palpitation; feebleness of heart's action; wrinkling and dryness of the skin; wasting of the muscles and fat; various changes in the joints (arthritis sicca, etc.); giddiness; disorders of special senses; aneurism; embolism. If the aorta is extensively affected, a jerking impulse may be felt above the sternum; there may be a murmur along the course of the vessel, a cardiac basic murmur intensified in the direction of this vessel.

Treatment.—Prevent its development and delay its progress. Correct all habits which may give rise to a predisposition to the disease. Avoid alcoholics. When present, avoid all violent excitement of the vascular system. Maintain general nutrition. Treat symptoms and complications as they arise. To delay its progress, perhaps arrest it completely, bichloride of mercury, $\frac{1}{30}$ to $\frac{1}{24}$ of a grain, combined with two grains of quinine, and given three times a day, for a long time (a number of weeks, perhaps months). *Cod-liver oil;* tonics. Hygienic measures.

ENTERALGIA.

Synonyms.—Neuralgia of the intestines

Definition.—Pain referred to the abdomen, and functional in character. (See Colic, intestinal).

Etiology.—Abnormal irritants, such as improper food, foreign bodies, hardened fæces, flatulence, cold, cathartics, lead, copper, etc.; reflex irritation from uterus or ovary. An abnormal irritability of the intestinal nerves associated with hysteria, hypochondriasis, and the various cachexiæ; The cause frequently cannot be found.

Symptoms.—Prodromal (may be absent): Uneasiness in the bowels; nausea; eructations of gas, etc. Actual: Severe griping pain about the umbilicus; patient groans or cries; body doubled up; hands pressed on the abdomen; vomiting; pulse small and weak; surface cool or cold; facies suffering and anxious; abdomen hard and tympanitic or retracted, rarely tender. Urine abundant and pale. An action of the bowels or discharge of flatus by eructation or by the bowels usually gives relief. The duration of the attacks is variable, and they may recur for several days. If due to lead, there is obstinate constipation which must be removed in order to afford relief. If due to malaria, the attacks are periodical. If due to syphilis, the attacks will usually occur in the evening. It may be complicated with gastralgia.

Differential Diagnosis.—From inflammatory affections; from gastralgia; from hepatic colic; from nephritic colic; from strangulation; from lumbo-abdominal neuralgia; from myalgia; from dermalgia.

Treatment.—Depends on the cause If due to irritant matters or hardened fæces, a cathartic (castor oil); enemata. If due to flatulence (in infants), emulsion of potassium bromide, gr. v., and oil of anise, gtt. ¼, every half-hour until relieved. In all cases, immediate relief may be given by hypodermic injection of morphia and atropia. Quinine is indicated in malarial colic; potassium iodide in nocturnal colic; alum and iodide of potassium in lead-colic; Hoffman's anodyne with fluid extract of valerian or enemata of asafœtida in *hysteric colic;* arsenic in chronic cases. (See Gastralgia and Colic.)

PRESCRIPTIONS.

℞ Chloroformi ..... ℥ ij.
Spts. camph ..... ℥ iss.
Tinct. opii ..... ℥ i.
Olei cinnamom ..... gtt. v.
Alcohol ..... ℥ iiiss.
M. S. Ten to thirty drops in water.

———

℞ Ext. gentian..
Pulv. rhei ..... āā ℥ i.
M. Div. in pil. No. xx. S. One or two, three times daily For tendency to colic.

———

℞ Sodii bicarb ..... ℥ ss.
Spts. ammon. aromat..... ℥ ss.
Morphiæ sol. (U. S. P.)..... ℥ ss.
Syrup. zingib ..... ℥ ss.
Aquæ camph ..... ad ℥ ij.
M. S. Teaspoonful. Colic in infants and young children.

ENTERITIS, MEMBRANOUS.

Synonyms.—Croupous enteritis; follicular enteritis.

Definition.—Inflammation of the large intestine, subacute or chronic, occurring periodically, and characterized by the formation and discharge of apparently membranous shreds or casts.

Etiology.—*Predisposing Causes:* Adult life; female sex (especially those suffering from uterine disease); nervous state.

Symptoms.—Depression (patients usually take a serious view of their case); headache; hysteria and nervous attacks; later, colicky pains around the umbilicus occurring at variable intervals; abdomen tender on pressure; tenesmus; large watery passages containing strings or flakes of coagulated mucus with or without blood; bowels may be confined. Loss of appetite; sometimes vomiting. After some days of suffering, shreds or casts of the bowel are passed, frequently with pain and tenesmus, followed by relief. The discharge of these casts (chiefly mucus) is the characteristic feature of the disease. Digestive disorders and debility remain. The same symptoms recur after some weeks or months or oftener. The patient may have only a single attack or several may occur.

Differential Diagnosis.—From dysentery; from tape worm.

Treatment.—The disease is not very amenable to treatment. Ipecac, $\frac{1}{8}$–$\frac{1}{2}$ gr. in pill three or four times daily; cold-water enemata; minute doses of corrosive sublimate, of copper sulphate, and of arsenic in chronic cases. Improve the general condition. In the acute, opium may be necessary to relieve pain; emulsion of almond oil and turpentine

or of castor oil and turpentine for constipation. Also, tincture of nux vomica and tincture of physostigma, āā gtt. v.-xv. t. i. d. Treat the symptoms.

EPILEPSY.

Synonym.—Falling sickness.

Definition.—A disorder of the nervous system, characterized by sudden seizures of temporary duration, occurring at irregular intervals, in which the patient loses consciousness or presents some other form of mental disturbance, or has tonic or clonic convulsions, or all of these phenomena in succession.

Etiology.—Often obscure. Inherited neuropathic constitution; intemperance in the parent, sexual excesses and masturbation (?); psychical impressions (fear, irritation, chagrin, etc.); injury to the head; sunstroke; syphilis, gout, rheumatism; reflex irritation (cicatricial retractions, depressed fractures of the cranial bones, dentition, worms, uterine or ovarian disturbances). Occurs most frequently between ten and twenty years of age. Convulsions after three years of age, uræmia and syphilis excluded, are probably epileptic.

Symptoms.—The following varieties are usually distinguished: Petit Mal and Grand Mal.

Epilepsia mitior (?) (*Petit mal*).—Sudden, flash-like, complete loss of consciousness, lasting a few seconds at most, accompanied by slight pallor and subsequent duskiness of the face; staring eyes; dilated immobile pupils; nearly always slight spasmodic movements, as of the muscles of the face, of respiration, and of the limbs, or momentary rigidity of the whole body. In a few cases, the loss of consciousness is incomplete (some say it is *always* complete), or there is only a feeling of vertigo. Momentary arrest of the action in which the patient is engaged (eating, talking, walking) to be resumed naturally. The patient may keep his equilibrium and continue to walk. After the attack, there is some mental confusion lasting a few minutes, sometimes a choking sensation. The attack may be preceded by the "aura epileptica" and may be premonitory of what is commonly regarded as the severer type. The attacks are sometimes followed by serious mental changes. Petit mal is more obstinate and serious than grand mal.

Epilepsia gravior (?) (*Grand mal, haut mal*).—Premonitory (may be absent): The feeling of a breath, hot or cold liquid, numbness or tingling, or pain passing from the periphery to the brain (aura epileptica); or a flash of light, a strange odor or noise may be perceived, or a state of mental perturbation, etc., may precede the attack by a few seconds, hours, or days.

Actual: Stage I. Patient utters a cry, yell, or moan, and usually falls immediately into absolute unconsciousness; sudden tonic spasm of all the muscles of the body, commencing about the face and neck; the head is drawn to one side; features distorted; teeth firmly clinched; eyes wide open and eyeballs turned up or in; arrest of respiration; face deadly pale; later dusky or livid; pupils dilated, immobile (abnormally sensitive to light during the interval); pulse feeble or absent at the wrist; the heart acts forcibly; carotids throbs violently. This stage lasts from ten to forty seconds or more.

Stage II. Respiratory muscles relax and breathing becomes restored; unconsciousness continues; clonic spasms succeed to tetanic rigidity; they usually commence in the face or limbs, and extend more or less over the whole body; hideous distortions of the features; champing of the jaws; grinding of the teeth; foaming at the mouth; tongue and cheek are often bitten, making the froth bloody; violent convulsive movements of the body and limbs; the fingers are bent and thumb pressed into the palm; respiration labored, panting and convulsive, often attended with gurgling sounds; increasing turgidity or lividity of the face; profuse perspiration; tumultuous heart's action with throbbing of the large arteries; petechiæ; involuntary discharge of urine, fæces, or semen; vomiting or hiccough. This stage lasts from a few seconds to ten minutes.

Stage III. Gradual return of consciousness and cessation of the spasmodic movements; the patient looks bewildered, alarmed, or sad; attempts to speak or arise, but some minutes elapse before consciousness is completely restored; tumultuous heart's action and perspiration continue; vomiting often occurs; often an abundant discharge of watery urine; patient feels exhausted, sleepy, and confused; headache; comatose sleep with stertorous breathing; muscles relaxed, with occasional slight twitchings; face continues turgid for some time.

The paroxysms vary in intensity, and occur at irregular intervals; sometimes two or more may occur in succession: the intervals tending to become shorter as the disease progresses; the attacks may occur at night without the patient's knowledge; they may also take the form of acute delirium or insane impulses. The general health in the intervals is rarely perfect; headache, giddiness, and digestive disorders being frequent.

Complications.—Coma from injury to the head; apoplexy; meningitis.

Differential Diagnosis.—From hysteric convulsions; from reflex convulsions; from attacks due to organic cerebral lesions, uræmia, or alcoholism; from syncope; from malingering; from Menière's disease.

Treatment.—During the attack, the patient should be prevented from hurting himself, inserting a pad between his teeth, and removing pressure from the neck; if the fit be prolonged, water may be dashed over the face and chest, chloroform caused to be inhaled (?), etc. Immediately after the attack the patient should be allowed to sleep. Impending attacks may sometimes be averted by inhalation of chloroform, amyl nitrite, administration of a dose of sal volatile or ether, compression above the point whence the aura springs, forcible prevention of movements (?), etc.

In the intervals, causes of irritation must be removed; if due to depression of the bones of the skull, the trephine may be available; nerve stretching if practicable at the point whence the aura proceeds; cicatrices pressing on a nerve to be dissected out; if due to syphilis, potassium iodide, etc. The diet and general health should receive careful attention; symptoms of indigestion corrected; light, digestible food for supper; avoid all articles which are difficult of digestion, such as nuts, rich pastry, etc. Coffee, tea, and tobacco to be used only in moderate quantities or interdicted; vicious habits abandoned; iron, quinia, strychnia, and other nerve-tonics, together with cod-liver oil, are often of use.

Numerous remedial agents have been proposed, the most important of which are: Silver nitrate in increasing doses from a fraction of a grain to gr. iij.–iv. t. i. d. (very liable to produce permanent discoloration of the skin). Oxide of zinc, gr. vi. to viij. in divided doses after meals, increased by gr. ij. every week until gr. xlv. are reached, which quantity

is continued for three months; the lactate, sulphate, phosphate, or valerianate of zinc have also been given. Ammoniate of copper, gr. ss., increased gradually to gr. v.; also sulphate of copper. Infusion of digitalis in increasing doses. Opium. Belladonna, beginning with gr. $\frac{1}{8}$ of the extract once daily for a month; the dose is then doubled, and so on until the limit of tolerance is reached. Potassium or sodium bromide, ℈i. two or three times daily, gradually increased until bromism is induced, when it is discontinued for a few days and then resumed. Strychnia may be combined with the bromide. Stramonium; conium; extract of cannabis indica, gr. $\frac{1}{6}$ t. i. d.

The cumulative effects of the bromides should be carefully watched; mental aberration, if not acute mania, may be produced by them.

PRESCRIPTIONS.

℞ Strychniæ sulph..... gr. i.
Acidi sulph. dil..... ♏ x.
Aquæ destill..... fl. ℥ iv.
M. S. ʒ i. after each meal.

In conjunction with the following:

℞ Sodii bromidi,
Potass. bromidi,
Ammon. bromidi..... āā ʒ iij.
Potass. iodidi,
Ammon. iodidi..... āā ʒ iss.
Ammon. sesquicarb ..... ʒ i.
Tinct. calumbæ..... fl. ℥ iss.
Aquæ destill..... ad fl. ℥ viij.
M. Full dose: fl. ʒ iss. before each meal, fl. ʒ iij. at bedtime.

℞ Potass. bromid..... ℥ ij.
Ammon. brom..... ℥ i.
Ammon. carb..... ℈ ij.
Aquæ ..... ℥ xiv.
M. One teaspoonful t. i. d. with three on going to bed. For adults.

℞ Potass. iodid..... ʒ i.
Potass. bromid ..... ℥ i.
Ammon. bromid..... ʒ iiss.
Potass. bicarb..... ℈ ij.
Infus. calumbæ ..... ℥ vij.
M. S. Teaspoonful t. i. d. and three on going to bed.

℞ Potass. bromid..... ℥ i.
Ammon. bromid ..... ℥ ss.
Ammon. carb..... ℈ ij.
Aquæ ..... ℥ xiv.
M. S. Teaspoonful t. i. d. with two or three on going to bed. For children.

℞ Potass. bromid..... ℥ i.
Chloral hydratis ..... ℥ ss.
Aquæ destill .....fl. ℥ vij.
M. S. Teaspoonful from four to six times daily. It is possible that the chloral may diminish the evil results produced by the bromides.

ERYSIPELAS.

Synonyms.—The rose; St. Anthony's fire.

Definition.—A constitutional disease, characterized by *inflammation* of the skin and subcutaneous connective tissue, *with a tendency* to spread.

Etiology.—Infection, contagion, or inoculation. (From *puerperal fever?* From hospital gangrene?) The cause is

often obscure; is sometimes attributed to local exposure; errors in diet (shell-fish, etc.). Absolute contagion is mooted. It has been asserted that erysipelas always depends on morbid lymphatic absorption.

Predisposing Causes: Age (the newborn; persons from twenty to forty); female sex, especially during menstruation; individual and family predisposition; the occurrence of previous attacks; systemic conditions—plethora, debility from intemperance or disease; local conditions—trauma, dropsy; a warm season.

Symptoms.—Incubation period ranges between a few hours and some days. Premonitory symptoms (may be absent): Malaise with muscular pains; nausea, vomiting, loss of appetite; sore throat; headache; restlessness; febrile movement; shivering or chilliness; epistaxis; cervical lymphatics or the submaxillary glands may swell. These symptoms may last from a few hours to five days before the characteristic signs appear.

Local Signs.—Heat, irritation, and tension of the affected part; skin tender to the touch; stinging or smarting. The surface presents a continuous sheet of vivid redness; is swollen, firm, shining. The redness disappears on pressure, and quickly returns. The inflammation begins at one spot, and extends in one or several directions. The character of continuous diffusion or spreading is pathognomonic. The red hue varies, becomes darker in its course. The swelling is greater and uneven in loose cellular tissue, and pits on pressure. In slight cases, the inflammation subsides, followed by desquamation of the cuticle. In severe cases, vesicles frequently form, containing yellowish serum; sometimes bullæ. These burst and discharge, often leaving crusts which, when detached, show superficial ulceration. The cuticle peels off extensively. Occasionally there is more or less suppuration, ulceration, or moist gangrene.

Seat and extent are variable; most common about the head and face; generally begins at a point where the skin is undergoing transition into a mucous membrane (inner angle of the eye frequently). The affection tends to spread rapidly over the face, scalp, and neck, with great swelling; features obliterated, eyelids closed, nostrils blocked, partial deafness. *Mouth, fauces, and larynx* may become involved; meningitis may supervene. The limbs and trunk are more rarely affected.

The redness and swelling are usually at their height on the second or third day, but different parts may present different stages. The disease may stop and recur several times, may be erratic or metastatic. The hair falls, but will be reproduced.

Neighboring glands become enlarged and tender; suppurate in rare cases.

The general symptoms increase with the outbreak of the local inflammation. Pulse rises to 100 or 120. Temperature ascends rapidly, may reach 104° F. or 105° F. on the first evening of the eruption, and increases while the inflammation advances, sometimes to 106° F. or 108° F. Evening exacerbations are usual, but exceptionally the morning temperature may be from 2° F. to 5° F. higher. Defervescence, in favorable cases of facial erysipelas, begins about the fifth or sixth day of the eruption; temperature falls rapidly to normal in from twelve to thirty-six hours (may remain high much longer, however). There are great deviations when the disease attacks other parts. Relapses, extensions, or complications will be indicated early by a rise of temperature.

Nausea, protracted vomiting, entire loss of appetite, excessive thirst, diarrhœa, or black offensive discharges may be present. Intestinal hemorrhage is not uncommon.

Erysipelas occurring during convalescence from typhoid fever, pneumonia, diseases of the heart, diabetes, with general anasarca, etc , is very dangerous.

The urine is febrile, frequently contains albumen, and may contain casts. Uræmia may occur.

In facial erysipelas, restlessness, often mild delirium at night; tongue heavily coated.

In all low forms of the disease, and in aged, feeble, or intemperate persons, typhoid symptoms.

Complications.—Cerebral or spinal meningitis; thrombosis of capillaries or sinuses; bronchitis; intestinal catarrh; ulceration of the duodenum; renal congestion and inflammation; invasion of the throat, larynx, or serous membranes; pyæmia; septicæmia.

Varieties.—Simple or cutaneous; œdematous; phlegmonous or cellulo-cutaneous; gangrenous; erratic or migratory; metastatic; also according to the seat—facial, scrotal, etc.

Differential Diagnosis.—From erythema; from urticaria; from the rashes.

Treatment.—Supporting: nutritious diet with cooling drinks; milk; beef-essence; milk and lime-water; isolation, attention to hygiene and ventilation.

Bowels to be kept open by saline aperients. Tincture of aconite root during active febrile excitement. Saline febrifuges; spiritus mindereri. In debilitated cases, tonics, vegetable and chalybeate; tincture of chloride of iron, small doses frequently repeated, or large doses; stimulants, ammonia, and alcohol. To relieve pain and wakefulness, opium, chloral, potassium or sodium bromide.

Locally, liquor plumbi et opii; inunction with crystallized carbolic acid, one part, and oleic acid, eight, ten, twelve, or fourteen parts; cover the affected part with cotton-wool, dusted over with flour or a mixture of starch and zinc oxide; tincture of iron; cold water dressings; vaseline; nitrate of silver. To limit the eruption, bounding it with tincture of iodine, nitrate of silver, or a narrow strip of fly blister, has been followed by good results in many cases. If there be great pain, fomentations containing opium or belladonna, then drying the part, and applying cotton-wool as above. Free incision for suppuration; scarification for phlegmonous variety. Poultices of yeast and charcoal. Phenic acid (?).

Complications to be treated according to indications.

Special care should be taken to prevent the spread of the disease, to those suffering from wounds or ulcers, and to puerperal women.

Traumatic erysipelas belongs to surgery.

PRESCRIPTIONS.

℞ Sol. quin. sulph. (grs. xv. in fl. ℥ i.) ..... fl. ℥ ij.
Tinct. ferri chlor..... fl. ʒ iv.
Spts. chloroformi..... fl. ʒ vi.
Glycerinæ..... q. s. ad fl. ʒ iv.

M. S. Teaspoonful every four to eight hours. As a tonic in all forms of erysipelas.

℞ Plumbi acetat.,
Magnesiæ carb.,
Camphoræ..... āā ℈ i.
Aquæ..... O. i.

M. S. Apply.

℞ Acid. carbolic..... 1 part
Aquæ..... 8 parts

Mix and add to balsam of Peru in the proportion of one in four, and beat thoroughly. Locally for traumatic or gangrenous erysipelas.

℞ Acid. carbolic.,
Spts. vini ..... āā ʒ i.
Olei terebinth..... ʒ ij.
Tinct. iodinii..... ʒ i.
Glycerini ..... ʒ v.

M. Pencil the surface every two hours, and cover with a thin layer of wadding.

FEBRICULA.

Synonyms.—Simple continued fever; simple fever; synocha; ephemeral fever.

Definition.—A mild fever, lasting from one to ten days.

Etiology.—Cold; excessive heat; overeating or drinking; fatigue, mental and physical. Possibly from a poison in too minute a quantity to produce its specific effect.

Symptoms.—Fever. Chill or slight rigor; lassitude; headache. Later, skin hot and dry, pulse frequent and full. Face flushed. Restlessness, sometimes slight delirium at night. Thirst, furred tongue, loss of appetite, constipation. Slight eruption (rare). Urine scanty and high-colored, high specific gravity.

Treatment.—Rest in bed. Diet of milk and beef-tea with cooling drinks. Catharsis. Solution of potassium citrate or liquor ammonii acetatis. Tepid sponging, if indicated. Anodynes. Quinia during convalescence.

PRESCRIPTIONS.

℞ Tinct. aconit. rad ..... ♏ iv.
Ext. ipecac. fld ..... ♏ i.
Spts. ætheris nitros..... ʒ i.
Aquæ..... ℥ iv.
M. S. Teaspoonful every ten or fifteen minutes as a febrifuge.

℞ Acid hydrobromic..... ʒ i.
Syr. simplicis..... ℥ ij.
Aquæ..... ad ℥ viij.
M. S. Two tablespoonfuls every hour.

FEVER, INTERMITTENT.

Synonyms.—Ague; fever and ague; chill fever, etc.

Definition.—A non-contagious fever, produced by malaria; characterized by febrile paroxysm occurring at regular intervals, each paroxysm (when fully developed) having a cold, a hot, and a sweating stage.

Etiology.—Malarial poisoning.

Symptoms.—Invasion is indicated by some premonitory symptoms of fever, with a periodic tendency. The attack may be sudden. A paroxysm or "a fit of the ague": Cold stage: Malaise, lassitude, languor, headache, loss of appetite. Sensation of cold in the limbs, along the back, and

over the body. Temperature elevated, 104° or 105° F., under the tongue. Teeth chatter; frame shivers. Skin pale and shrunken; features pinched. The tips of the fingers and the lips are blue; in severe cases the whole surface is livid. *Cutis anserina.* Pain in the back and limbs may be present. Tongue pale, moist, clean, cool; thirst. Often nausea and vomiting; epigastric uneasiness. Dyspnœa, hurried respiration; often dry cough. Pulse frequent and small, sometimes irregular. This stage varies in intensity. Signs of collapse may be present. Duration from a few minutes to three hours.

Hot stage: The transition may be sudden; usually gradual, with alternate flushings and chilliness. The skin becomes hot, dry, red and tumid; sometimes a patchy rash. Temperature 106° or 107° F. Face flushed; eyes injected and sparkling. Intense thirst; dryness of mouth; anorexia; white tongue; sometimes nausea and vomiting. Heart and arteries throb; pulse strong and full. Respiration more quiet. Throbbing headache; sometimes delirium or convulsions. This stage usually lasts from two to three hours (may vary from two to twelve hours).

Sweating stage: Duration indefinite. Perspiration breaks out, first on the forehead, and by degrees extends over the body; it sometimes has a peculiar odor; it continues for some time, during which the fever and symptoms abate. Patient falls asleep, and awakes feeling comparatively well. During this stage there is usually a critical urinary discharge; sometimes diarrhœa. Anasarca may be present when perspiration is deficient. Pigment in the blood.

Intermission: Patient at first feels convalescent; later, there is languor and depression, anorexia, anæmia. After a while the spleen becomes enlarged, with corresponding graver symytoms.

The temperature is characteristic; rapid ascent, short stationary period, critical defervescence, normal in the intervals. It usually rises to 105 to 107° F., but may reach 112° F., in hot climates.

The urine is increased during the cold and hot stages, diminished at the close of the latter, and is deficient and concentrated during the sweating stage. Uric acid and urates *are in excess, sodium* chloride increased, phosphates *diminished. Albumen,* blood, and casts may be present.

Varieties.—*Quotidian,* paroxysms at intervals of twen

ty-four hours; Tertian, intervals of forty-eight hours; Quartan, intervals of seventy-two hours; Double Quotidian; Double Tertian; Double Quartan; Erratic or irregular. Some forms are also described as Sthenic; Asthenic; Pernicious or malignant. Dumb ague is a popular name for an attack in which the chill is absent or obscure, the other symptoms recurring periodically.

Complications and Sequelæ.—Enlargement of the spleen and liver; pneumonia; anæmia with dropsy; neuralgia.

Treatment.—During the paroxysm: In the cold stage, rest in bed, well covered with blankets; dry heat externally; hot drinks. If depression is great, diffusible stimulants; opium for restlessness. For vomiting, an emetic of sulphate of zinc, with plenty of warm water. If the stage is greatly prolonged, a hot-air bath. In the hot stage, the skin to be sponged freely; cooling effervescent or saline drinks. During the sweating stage, keep patient covered to prevent a chill. Opium hypodermically, early in the cold stage, will diminish the severity of both the cold and the hot stages. The paroxysm has been broken up by administering one-fifth of a grain of the muriate of pilocarpine hypodermically early in the cold stage. Full doses of chloral, just before the expected paroxysm, may abort it.

During the intervals, quinine, either gr. xx.–xxx. in solution before or at the close of a paroxysm, or else gr. iij.–v. every four to six hours. Some authors state that gr. x. of quinia with ⅓ to ½ gr. of morphia are more effective than gr. xx. of quinia alone. If rejected, it may be given per enema or hypodermically. The treatment must be continued for some time after the paroxysms have ceased. The other cinchona alkaloids and salicin (gr. xl.–lx.) may likewise be used. Arsenic (Fowler's solution, ♏ iv. or v. gradually increased to ♏ x.) three times a day. Symptoms and complications may require special attention, but the use of quinine should not be suspended. For the cachexia induced by ague, quinine, iron and arsenic; phosphorus; tincture of Eucalyptus globulus. Patient should remove beyond the limits of the malarial district.

The pernicious form must be treated on the same general principles, but much more energetically. The hypodermic method of administering the quinine is extremely valuable.

PRESCRIPTIONS.

℞ Quiniæ sulph..... ʒ i.
Capsici pulv..... gr. xviij.
Opii pulv..... gr. vi.
M. Div. in chart. No. vi. S. Take one powder twelve hours before, and one one hour before the chill is to occur.

℞ Quiniæ bisulph..... gr. l.
Acid. sulph. dil ..... ♏ c.
Aquæ font..... ℥ i.
Acid. carbol. liq..... .... ♏ v.
Place the quinine and water in a porcelain dish, heat to the boiling point, then add sulph. acid, stirring with a wooden spatula. Filter at once into a bottle and add the carbolic acid. One drachm contains six grains of quinine. Lente's solution for hypodermic use.

℞ Quiniæ bromid..... gr. xx.
Alcohol..... . .. . ♏ xx.
M. Dissolve and add water to any dilution desired. For hypodermic use. Concentrated solutions of quinine are not readily absorbe i when thrown into the cellular tissue.

℞ Tinct. iodinii,
Tinct. ferri chloridi,
Tinct. sanguinar.. ãã equal pts.
Thirteen to fifteen drops after each meal. To be given after paroxysms have been arrested with quinine, which drug is continued in one-grain doses before meals, for eight to ten days.

℞ Acidi carbol..... ʒ i.
Tinct. iodin. comp..... ʒ iij.
M. S. Four drops every four hours in sufficient water. A use-substitute for quinine (?).

℞ Quiniæ sulph..... ʒ i.
Acid. hydrobromic..... . ʒ ij.
Aquæ destillat..... ʒ vi.
M. Thirty minims contain four grains of quinine. For hypodermic use.

FEVER, REMITTENT.

Synonyms.—Bilious fever; bilious remittent fever; Walcheren fever; African fever; Hungarian fever; jungle fever; lake fever, etc.

Definition.—A continued fever with diurnal exacerbations, occurring most frequently in tropical regions. The febrile paroxysms are not separated by intermissions of complete apyrexia. Generally when a remittent becomes a continued fever, and anti-periodic remedies fail to arrest its course, the fever is a typho-malarial (malarial and typhoid, or malarial and septic).

Etiology.—Malarial poison (may be overwhelming).

Symptoms.—Premonitory (may be absent): Gastric irritation; epigastric oppression; nausea; vomiting (bilious); anorexia; headache; general pains; languor. Actual: Usually a chill, but the cold stage is not so complete as in intermittent or pneumonia. Temperature 100° or 101°

Hot stage is very intense; skin burning and dry, face flushed; eyes injected; intense headache; pain in the back and limbs; giddiness; restlessness; temperature two to ten degrees above normal. Often violent delirium; nausea and vomiting (constant) stringy mucus tinged with green; epigastric oppression; tongue furred and dry; lips parched; intense thirst; pulse frequent (rises with the temperature), either full or small and compressible. Pigment in blood.

The symptoms usually abate (temperature does not reach the normal) in from three to twelve hours, sometimes continue twenty-four or even above forty-eight hours. Perspiration. The remission is of variable duration, and is followed by an exacerbation of greater intensity than the first attack. In severe cases, two exacerbations may occur in twenty-four hours. The fever "anticipates" when the exacerbation occurs earlier each day; and it "postpones" when the exacerbation occurs later each day. The latter is favorable. Intense adynamia may set in. Skin becomes yellow; hemorrhages frequent; sometimes black vomit and jaundice; typhoid condition. (Pernicious remittent.)

Spleen and liver enlarged and tender. Urine generally scanty, dark, acid, and of high specific gravity; rarely albuminous. Constipation, probably present at the beginning, has given way to diarrhœal discharges, usually of a brownish color. The disease lasts from five to fourteen days, and may terminate in death from exhaustion and blood-poisoning, or assume an intermittent type and end in recovery.

Complications and Sequelæ.—Enlarged spleen; "bronzed liver;" pigmented tissues; anæmia; dropsy.

Differential Diagnosis.—From intermittent fever; from yellow fever; from typhoid fever; from hectic; from pyæmia and septicæmia.

Treatment.—Attention to hygiene and ventilation. During the hot stage, cool drinks freely; cold to the head; cold affusions; baths, or wet packs. Vomiting to be checked by ice, creasote, etc. At once begin the use of quinine independent of exacerbation or remission, gr. x.-xv.-xx. every two hours, per enema or hypodermically if rejected, until cinchonism is produced. Or Warburg's tincture (half an ounce repeated in three hours). No antiphlogistics. Bowels to be kept open by simple enemata or laxatives. Bland nourishing diet and plenty of stimulants. Quinia and chalybeates during convalescence.

Convalescence is slow; marked debility remaining which may prove fatal.

Complications and Sequelæ.—Bronchitis or pneumonia; hemorrhagic infarction of lungs; pulmonary œdema; pleuritis; hemorrhages; uræmia; sudden syncope (during the paroxysm, in the intermission or in the relapse); œdema glottidis; pseudo-membranous pharyngitis and laryngitis; abcesses in the muscles or spleen; arthritis; amaurosis and ophthalmia; thrombosis and gangrene; diarrhœa and dysentery; œdema of the legs; suppurative parotitis; buboes; abortion; peritonitis; erysipelas; pachymeningitis hæmorrhagia.

Differential Diagnosis.—From eruptive fevers; from febricula; from remittent fever; from typhus and typhoid fever; from dengue; from yellow fever.

Treatment.—Expectant. The tendency is toward recovery. Isolation and ventilation. If seen early, an emetic (?); during first febrile paroxysm the bowels must be kept open, but not purged; rest in bed; plenty of pure water to drink; sodium salicylate.

Attention to the urine: saline diaphoretics and diuretics; these failing, hydragogue cathartics. A drink containing a drachm of nitre to the pint of water. Cold or tepid sponging, wet pack, or graduated bath. Hypodermics of morphia, or chloral hydrate internally for headache, sleeplessness, and rheumatoid pains. Ice for vomiting. Carbolic acid, ¼ to ½ grain in cherry-laurel water for nausea.

Diet light and nutritious. Milk. Alcoholic stimulants and digitalis if debility be marked, or there be tendency to syncope; especially for children and the aged; also after crisis and during convalescence. Complications require their special treatment.

During the interval, *rest in bed.* Quinine in 5-grain doses. Sulphites. Relapses to be treated like the primary attack. During convalescence, generous diet and tonics. Mineral acids, iron, etc.

PRESCRIPTIONS.

℞ Chloral hydratis..... ʒ ss.-i.
Lin. saponis camph..... fl. ʒ vi.
M. Anodyne liniment to relieve the pain in the muscles.

℞ Quiniæ sulph.... ..... ʒ i.
Pulv. camph...gr. vij. to xviij.
M. et div. in char. No. xij. S. One t. i. d. during the intermission.

FEVER, TYPHOID.

Synonyms.—Enteric fever; pythogenic fever; abdominal typhus; autumnal fever; common continued fever; typhoid affection of Louis; ileo-typhus.

Definition.—A self-limited, acute febrile affection; infectious; mildly if at all contagious; characterized by a peculiar eruption, range of temperature, and peculiar stools.

Etiology.—A specific poison. Infection, which may be conveyed by water, milk, sewer emanations, and putrefying animal matter.

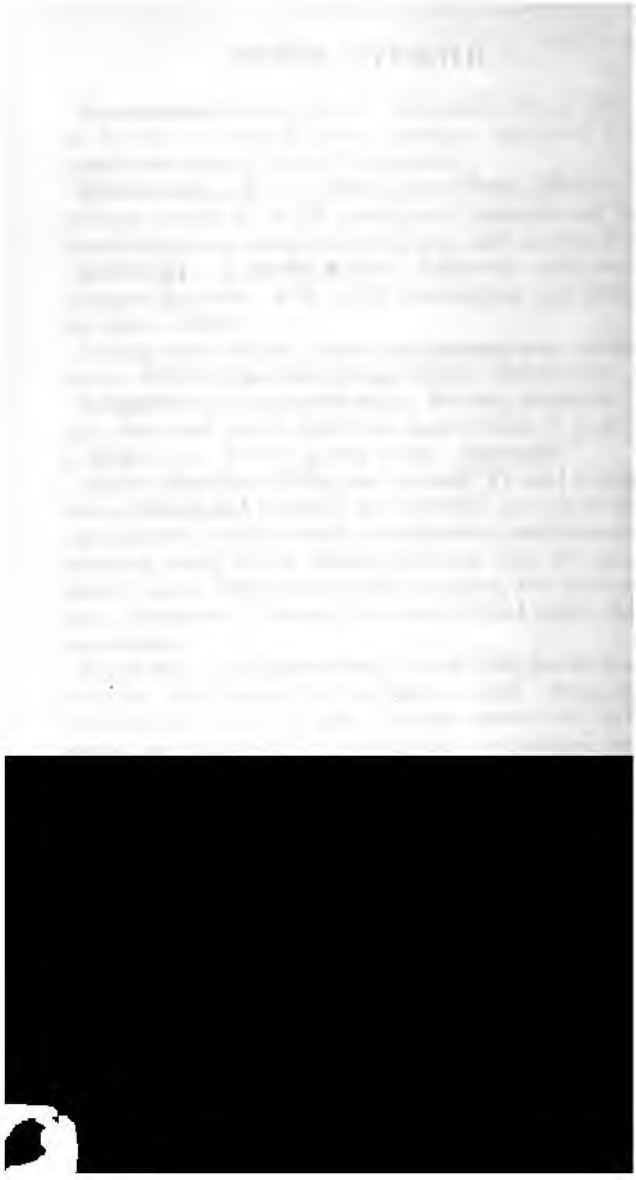
Predisposing Causes: Youth and adolescence; autumnal season; defective sanitary arrangements; idiosyncrasy.

Symptoms.—*Incubation stage:* Malaise; headache; vertigo; disturbed sleep; diarrhœa, spontaneous or produced by purgatives. Vomiting may occur. Epistaxis.

Actual attack (Indefinite and gradual): Frontal headache with giddiness and tinnitus; photophobia; pain in the limbs and lassitude; lack of mental concentration; restlessness and disturbed sleep; slight chills; diarrhœa, loss of appetite; furred tongue; sometimes nausea, vomiting, and abdominal pain. Epistaxis. Pyrexia increasing toward night, rise in temperature.

Early stage: Some depression. One or both cheeks flushed at times. Skin hot and dry, sometimes moist. Pulse 100 or 120, variable, weak and soft. Tongue coated with a thin whitish or yellowish fur; moist, small and pointed, red at tip and edges; papillæ enlarged. (Exceptionally, large and thickly coated, or red, smooth and glazed.) Thirst, loss of appetite; often nausea and vomiting.

Abdominal pain and tenderness in right iliac fossa; tympanites; gurgling on pressure in right iliac fossa; diarrhœa. Spleen enlarged. Sometimes intestinal hemorrhage. After a few days, dejections become thin, yellow, pultaceous (pea-soup); very offensive. Frontal headache, dizziness, and tinnitus persist. Sleep restless. No delirium. Epistaxis. Urine febrile. Bronchial symptoms; dry râles. Eruption (not invariably) appears from sixth to twelfth day from the beginning of the fever (may vary from fourth to twentieth), generally on trunk (loins), rarely on limbs or face, in successive crops; each roundish lenticular, elevated spot lasts from two to five days and fades away, and another spot takes its



place. Color rose-red, disappears under slight pressure. Entire duration of eruption from eight to fourteen days.

Advanced stage: Previous symptoms may continue unchanged until convalescence; usually emaciation and prostration ensue. Face flushed; conjunctivæ injected; pupils dilated. Pulse increases in frequency, decreases in strength, and becomes dicrotic. Tongue dry and brown, or red, shining and fissured; sordes; offensive breath. Labial herpes. Abdominal symptoms intensified; intestinal hemorrhage (usually in the latter part of the second and during the third week; slight hemorrhages may occur early in the disease).

From the tenth to the fourteenth day, headache and general pain cease; giddiness and deafness. Somnolence, hebetude, delirium (active), subsultus tendinum.

Third to fourth week: Sudamina over chest, abdomen and sides of neck. Bed-sores. Respirations hurried and shallow; bronchial catarrh. Urine more abundant and lighter. (Occasionally retention, hæmaturia.) In favorable cases, there is slow and gradual convalescence.

The temperature is characteristic; its ascent is regular and gradual for from five to eight days; that of the evening is from 1.8 to 2.5° F. higher than that of the morning; that of the morning 1° F. higher than that of the morning of the preceding day. Then follows a stationary period of variable length, succeeded by a gradual decline.

Complications and Sequelæ.—Pharyngitis; laryngitis; œdema glottidis; pneumonia; pleurisy; capillary bronchitis; acute tuberculosis; perforation of the intestine; peritonitis. Thrombosis of the veins; bed-sores. Phlegmasia dolens; phthisis; mental weakness; temporary paralysis; neuralgia; otorrhœa; abscess; tetanus.

Differential Diagnosis.—From typhus fever; from remittent fever; from typho-malarial fever; from meningitis; from bronchitis; from pneumonia; from acute tuberculosis; from enteritis.

Treatment.—Thorough disinfection of the stools; removal of all filth; attention to water supply.

Rest in bed; fresh air; tepid sponging; cold pack or bath, with quinine, if temperature is high; liquid nutritious diet, at stated intervals—*good milk;* beef-tea with arrow root (?); *beef-juice; custards; toast*-water; mucilaginous drinks; also

tea or coffee. No fruit. Alcoholic stimulants when required; these should not be used indiscriminately, their effects must be closely watched. Mineral acids.

Treat the symptoms: for restlessness and wakefulness, the bromides, chloral, morphia; for abdominal pain and tympanites, enemata containing turpentine or asafœtida, linseed-meal poultices and fomentations; turpentine stupes or sinapisms; opium internally. For excessive diarrhœa, enemata of starch and opium, or internally Dover's powder, which may be combined with carbonate of bismuth; compound kino powder; sulphuric acid with tincture of opium and vegetable astringents; in obstinate cases, acetate of lead, sulphate of copper, or nitrate of silver. For constipation, a teaspoonful of castor oil or simple enema every third or fourth day. For intestinal hemorrhage, opium, full doses of tannic or gallic acid, turpentine, or solution of chloride of iron internally, or hypodermics of ergotin. Ligation of the extremities. Ice to be sucked constantly, and applied over the right iliac region. For perforation and peritonitis, absolute rest, only such food as will be taken up almost entirely in the stomach, morphia hypodermically, and avoid aperients or cathartics. For tympanites, liq. sodæ chlorinatæ, salicylate of potassium, turpentine, rectal tube, puncture. For bed-sores, cold-water bags and removal of pressure; harden the skin by washing with alcohol and Goulard's extract; also equal parts of copaiba and castor oil, or a large yeast poultice. For epistaxis, local styptics or plugging of the nares. Complications require special attention.

During convalescence, careful attention to food and the state of the bowels. Diet to be very gradually improved, and any excess guarded against. Wine, tonics, change of air, cod-liver oil. For constipation, a small dose of castor oil or simple enema.

Other modes of treatment recommended are: The administration of antiseptics. Baths, packs, and tepid sponging for hyperpyrexia. Cold should be used with care and discrimination. Aperients in order to eliminate the poison from the system (questionable). Calomel, a 10-grain dose *on alternate* days (?). Lugol's solution, 3 to 5 minims in *water three* times a day, continued during the first two *weeks.*

PRESCRIPTIONS.

℞ Tinct. iodinii..... ..... ʒ ij.
Acidi carbolici..... ʒ i.
M. S. One to three drops three times a day.

℞ Bismuth. subnit..... ʒ i.
Morphiæ sulph..... ..... gr. i.
M. Div. in chart No. xii. To be given p. r. n. in diarrhœa.

℞ Olei terebinth.,
Tinct. anisi..... āā fl. ʒ i.
Vitelli ovi ..... No. ij.
Sacchari. ..... ʒ ij.
Aquæ puræ .... ad ℥ i.
M. ft. emulsio. One teaspoonful contains eight drops of turpentine.

Quiniæ hydrobromat., 8 to 12 grs. acts as an antipyretic and also a sedative.

FEVER, TYPHO-MALARIAL.

Synonyms.—Chicahominy fever; camp fever.

Definition.—A compound form of fever due to the combined causes of malarial and typhoid fevers; or to the combined action of a septic and a malarial poison.

Etiology.—Is implied in the definitions (malarial poison, overcrowding, improper diet, etc.).

Symptoms.—A combination of those presented by the two diseases when occurring separately. The character of either may predominate.

Complications and Sequelæ.—Bronchitis; pneumonia. Serious abdominal complications are rare.

Differential Diagnosis.—From simple remittent fever; from typhoid fever; from cerebro-spinal meningitis; from relapsing fever.

Treatment.—Full antiperiodic doses of quinine as in simple malarial fever, combined with treatment appropriate to typhoid or septic fever. Prevent overcrowding and faulty diet. There are no specifics. Remove defective sewerage and faulty drainage.

FEVER, TYPHUS.

Synonyms.—Putrid fever; camp fever; ship fever; jail fever; petechial fever; cerebral typhus, etc.

Definition.—A self-limited continued fever, due to a specific poison, the exact nature of which is not known; characterized by profound prostration and a peculiar eruption, often associated with petechiæ. It is highly contagious.

Etiology.—Infection. Overcrowding and destitution (?).

Predisposing Causes: Low physical condition; overcrowding and bad ventilation; lack of cleanliness; fatigue; mental depression; habitual alcoholic excesses; idiosyncrasy.

Symptoms.—Incubation stage (five to fourteen days): Chilliness, general malaise, restlessness, headache, loss of appetite.

Invasion stage: Chill with rise of temperature. Depression and prostration. Muscular pains; trembling limbs. Frontal headache with throbbing; giddiness; impaired hearing with tinnitus; photopsia (sparks, flashes) and photophobia; contracted pupils; restlessness; drowsiness. Delirium, generally low muttering, but may be violent. Facies heavy and indifferent; eyes injected, suffused. Cheeks flushed. Complexion dingy. Nausea and vomiting (sometimes). Tongue coated with a thick white fur, speedily becoming dry and brown; swollen and thick in severe cases. Thirst and loss of appetite. Bowels generally confined, but may be loose. Spleen enlarged. Skin hot. Temperature rises rapidly after the chill, perhaps to 104° or 105° F. in twenty-four hours; no typical range. Pulse frequent (100-140). Catarrh of nasal and respiratory mucous membranes; cough and expectoration. Dry râles over chest.

Eruption stage: At first, diffused reddish appearance, then little red dots, then subcuticular mottling, or maculæ mulberry rash), or both appear on the fourth or fifth day (may vary from third to eighth day), on the borders of the axillæ, over abdomen and epigastrium, on the back of the wrists, and spread rapidly; seldom on the face and neck rarely absent. The eruption is complete in at most three days, remains stationary until its entire disappearance (fourteenth to twenty-first day). Spots disappear under pressure for three or four days, not thereafter. With the mulberry rash, petechial spots may appear. No desquamation.

Skin of dependent parts congested. Sudamina occasionally at the end of the second week over groins, epigastrium, or subclavicular regions. Peculiar odor of the skin.

The headache generally subsides by the tenth day; if it continues longer, indicates danger. Previous symptoms become aggravated. Somnolence, stupor, and coma. Pick-

ing at bedclothes; at times convulsions with strabismus. Coma vigil (occasional) or typhomania. Extremities cold and clammy. Tongue dry, brown, and cracked; sometimes with blackish crust and immovable; sordes. Thirst with difficult deglutition. Nostrils blocked up. Tympanites (not constant). Pulse rises to 120, 140, 150 or more and stationary; small, weak, irregular. Heart feeble; capillary stasis. Respiration hurried and abdominal. Offensive breath. Bronchial râles. Hiccough. Urine usually albuminous and may contain sugar. Bed-sores.

Stage of defervescence: Commences from thirteenth to seventeenth day. Crisis, deep long sleep. Temperature and pulse fall, the latter becomes stronger. Skin soft and perspiring, eruption less marked, complexion clearer. The tongue becomes moist, cleans from edges; appetite begins to return. Delirium ceases; consciousness returns; extreme weakness remains. Relapse rare.

Complications and Sequelæ.—Bronchitis, pulmonary hypostatic congestion and consolidation, pneumonia, gangrene of lung (rare) pleurisy, phthisis, laryngitis with œdema glottidis; cardiac softening and degeneration, phlegmasia dolens, scurvy; partial paralysis; dysentery; gangrene of toes, nose, etc., cancrum oris; erysipelatous affections; suppurative inflammation or buboes of parotid or submaxillary glands; inflammatory swelling and abscesses in various parts of the body; suppurative inflammation in joints; renal disease.

Differential Diagnosis.—From typhoid fever; from typho-malarial fever; from remittent fever; from meningitis; from pneumonia; from acute tuberculosis; from enteritis.

Treatment.—Isolation and disinfection. Fresh air. Regular hygienic surroundings. Nutritious, easily assimilated diet—milk, beef-tea, chicken broth at regular intervals day and night. Alcoholic stimulants—port or sherry wine and brandy in small, increasing doses, regularly day and night, according to indications. Antipyretics—cold baths or wet pack.

Bowels to be kept open by a mild aperient or simple enemata. Plenty of drink containing potassium citrate, nitre, cream of tartar, or potassium chlorate; also tea, coffee, and salt. Dilute mineral acids in doses of ♏ x.-xxx. every three or four hours, with tincture of bark. Quinine

moderate doses. Digitalis. Tincture of iron. Symptoms must be treated as they arise. For hiccough, sal volatile, ether, spirits of chloroform, hydrocyanic acid, camphor, and musk in various combinations; or sinapism to epigastrium, or ice-bag. For prostration, diffusible stimulants, nutrient enemata. Examine the urine daily. Complications must be watched for. Convalescence requires much care; all exertion and over-indulgence to be prohibited.

FEVER, YELLOW.

Synonyms.—Typhus icterodes; black vomit; yellow jack.

Definition.—A continued fever, characterized especially by epigastric tenderness, vomiting, hæmatemesis, and jaundice (miasmatic infectious disease).

Etiology.—Is obscure. Infection or contagion (?). The majority of observers believe that it is not contagious. The disease is endemic in certain tropical regions and also occurs in severe epidemics. It is indigenous in the West Indies, the Bahamas, and in Vera Cruz on the Gulf of Mexico. Acclimation may afford partial protection. One attack, as a rule, protects against subsequent ones. The vitality of the poison may be retained for a long time.

Predisposing Causes: Long-continued high temperature (daily average above 75° F.); a swampy or low-lying and crowded district; filth; bad hygienic conditions; moisture; decaying animal and vegetable matter; recent arrival in an infected district; intemperance; excesses; fatigue; exposure to night-air and dews; individual predisposition (African race least liable to have it).

Symptoms.—The symptoms vary in intensity in different epidemics. Incubation lasts usually from two to four days (may vary from one to fifteen days).

Invasion Stage: Premonitory symptoms may be present or absent. Chills (may be absent) alternating with flashes of heat; marked pyrexia (101 to 110° F.) with morning variations. Pulse frequent (100 to 110), generally full and strong. Face flushed; eyes red and suffused; expression anxious and distressed. Skin hot, dry, and harsh. Tongue covered with white fur, moist at the tip and edges. Sore throat in some cases. Thirst; anorexia. Oppression or burning in the epigastrium, with tenderness, nausea, violent vomiting and retching. The vomited matters are bilious in

character, and later contain streaks of blood or chocolate-colored flocculi (coffee-ground vomiting). Constipation with unhealthy stools, deficient in bile; flatulence. Urine diminished and generally albuminous. Severe frontal headache with shooting pains in temples and eyes. Intense pain in lumbar region and limbs (calves of the legs). Restlessness; hebetude; or violent delirium with hallucinations; sometimes stupor. This stage lasts from a few hours to two or three days, or longer in milder cases.

Stage of Remission: Marked improvement at the close of the first stage; often only temporary, sometimes permanent. Skin, conjunctivæ, and urine yellow; more marked epigastric tenderness; slow, gaseous pulse (40 to 30); sometimes stupor. Remission lasts from a few to twenty-four or even forty-eight hours. Temperature rarely below 100° F.

Stage of Collapse or Secondary Fever: Great prostration and debility. Skin generally yellow, orange, or bronzed, the discoloration spreading from the forehead downwards. Circulation impeded; pulse rapid, weak, and irregular; capillary congestion in dependent parts; sometimes petechiæ and purple spots or stripes (vibices); heart may beat violently. Hemorrhages from mucous surfaces common in bad cases. Tongue either dry, brown, or black, or smooth, red, and fissured. Gastric symptoms become aggravated; black, often preceded by white vomit. Stools are similar in type. Urine deficient and albuminous, frequently suppressed. Apathy. Collapse; cold clammy skin; slow sighing respiration; hiccough. Consciousness may remain clear, or low delirium and coma may set in; convulsions at the close. In some cases, the symptoms of this stage are those of a secondary fever varying in intensity, which may terminate in convalescence or assume a fatal typhoid type. The disease may last from a few hours to nine days.

Varieties.—Algide; sthenic; hemorrhagic; petechial; typhous.

Differential Diagnosis.—From other continued fevers; from relapsing fever; from malarial remittent fever; from yellow atrophy of the liver.

Complications and Sequelæ.—Uræmia; hemorrhages (alimentary canal, nose, vagina, eyes, ears, etc.); *cellulitis and abscesses* have been mentioned, but are not constant.

Treatment.—*Its* introduction into any locality wh

it is not indigenous can be prevented by quarantine. The daily use of quinine may have some effect as a prophylactic. The disease does not occur at an elevation of five hundred feet above the level of the sea. Attention to hygiene. *Rest in bed.* Ten grains of calomel with ten grains of quinine is a favorite prescription at the outset. Skin to be sponged if temperature rises above 103° F.; for fever a full dose of quinine may be given as an antipyretic. Liquid food in small quantities; cool drinks and plenty of ice. Alcoholic stimulants well diluted or champagne when the heart's action is feeble. For vomiting, lime-water and milk; hypodermic use of morphia; hydrocyanic acid; creasote; chlorodyne; chloroform; and acetate of lead with opium if blood is vomited. Ergot, or ergotin hypodermically, may be used also for the gastrorrhagia and other hemorrhages. Hot applications or mustard poultices externally over painful parts. For uræmic symptoms, the hot-air bath; the cautious use of jaborandi. Other symptoms require ordinary expectant treatment. Quinine during convalescence. Recovery after "black vomit" is more frequent than after suppression of urine The presence of both renders a case almost completely hopeless. Salicylic acid, 5 to 10 grains daily as a prophylactic (?).

PRESCRIPTION.

℞ Tinct. camph.,
Chloroform .....,āā ℥ss.
M S. Two drops p. r. n. for the vomiting.

GALL-STONES.

Synonyms.—Biliary calculi; cholelithiasis; hepatic colic (?).

Etiology.—Obscure. Inspissation and concentration of bile (?); an abnormal condition of the bile (diminished proportion of soda; increased proportion of lime), leading to the precipitation of a crystallizable substance (?); catarrh of the gall-bladder and ducts. Calculi occur chiefly after the middle period of life; more particularly in those who *take* plenty of rich food and alcoholic drinks (?); in people of *sedentary habits* (?); more frequently in the female sex. *Rarely found* in the hepatic duct.

Symptoms.—If the calculi are free in the gall-bladder *or ducts,* they may not give rise to symptoms; or they may

intestinal catarrh, sodium carbonate, gr. $\frac{1}{20}$, may be added to each dose. Vichy and other alkaline mineral waters to be used daily; or the patient should drink a large quantity of a warm solution of sodium bicarbonate (ʒ i.–ij. in O. i.), examining the urine weekly with reference to its acidity. Durande's remedy, consisting of sulphuric ether three parts and oil of turpentine two parts, ʒ i. every morning for a year; its efficacy has been strongly doubted. Chloroform has been recommended as a solvent (gall stones do not dissolve readily in chloroform outside of the body).

Regulation of the diet to prevent recurrence: Exclusion of fatty and saccharine substances; lean meats, eggs, fish, fruits, and succulent vegetables to be used freely. Wine at dinner is allowable, but malt liquors and spirits should be prohibited. Moderate exercise; out-of-door life.

PRESCRIPTIONS.

℞ Succinat. hydrat. ferri peroxidi ..... ʒ iss.
Aquæ ..... fl. ℥ viss.
M. S. A teaspoonful after each meal. To be continued for several months and resumed at intervals afterwards. Recommended for the prevention of future formations of calculi.

℞ Sodii choleat..... ..... ʒ i.
Div. in Chart. No. viii. or xii. S. One twice daily until gastric disturbance is produced; or for two weeks, then omitted for one month, and then renewed.

GASTRALGIA.

Synonym.—Gastrodynia.

Definition.—A neuralgic affection of the stomach without fever.

Etiology.—Neurotic temperament; nervous state; hysteria; uterine and ovarian disease; malaria; anæmia; debility; hypochondriasis; gout and rheumatism; abuse of tea and coffee (?); dietetic excess or idiosyncrasy.

Symptoms.—Severe paroxysmal pain at or about the epigastrium, radiating upward, downward, and backward. Pain diminishes on pressure. The intensity of the pain is a marked feature. Dyspeptic symptoms generally present. In severe cases, pain leads to prostration—pulse small, rapid weak, or intermittent; surface cold and covered with cold sweat; features shrunken. Heart's action disturbed. Duration of attacks variable, generally short, terminating with eructation of gas or vomiting; pain subsides, leaving sense of soreness, or lighter pains which may continue for several

days. Attacks may be regularly intermittent (uterine disease, malaria). Meantime digestion may remain undisturbed, nutrition normal. Nervous disorders are usual concomitants—palpitations, migraine, hysteria, hypochondria with oxaluria.

Differential Diagnosis.—From gastritis; from myalgia of abdominal muscles; from intercostal neuralgia; from hepatalgia; from neuralgia of solar plexus; from ulcer of the stomach; from cancer.

Treatment.—During the paroxysm, morphia in full dose hypodermically, dry on the tongue, or by enema. Alcoholic stimulants. If morphia be contra-indicated, belladonna, hyoscyamus, or creasote or carbolic acid in emulsion with bismuth. Or, tincture of iodine and carbolic acid, equal parts, in drop doses every hour in cold water. Bismuth in large doses, one scruple to one drachm three or four times a day. Arsenic (gtt. i. of Fowler's solution) and opium (gtt. ij. of the tincture). Sinapisms; fomentations and embrocations containing opium, chloral, aconite, etc., or cold to the epigastrium. Between the attacks, arsenic or oxide and nitrate of silver. For intermittent form, quinine or salicylic acid. If due to indigestible food, large draughts of warm water to induce vomiting, or apomorphia hypodermically. Irrigation or saline antacid laxatives if the disturbance continues. Chalybeate and supporting remedies—carbonate, citrate, lactate of iron, or sulphate or chloride in those of feeble habit. Mineral acids (muriatic) combined with tincture of nux vomica. Long-continued use of drop doses of Fowler's solution three times a day.

Regulate the diet; milk cure at first, feed frequently small quantities, and if necessary give pepsin with lactic or muriatic acid.

GASTRITIS, ACUTE.

Synonym.—Acute gastric catarrh.

Definition.—Acute inflammation of the stomach. The duodenum is frequently involved.

Etiology.—Atmospherical changes; errors of diet; insufficient mastication of food; swallowing too hot or too cold liquids; *excessive eating*; abuse of ices, condiments, *sauces, etc.; alcoholic drinks*; sedentary habits; grief, etc.

Symptoms.—*Impaired* appetite; complete aversion to

food; labored digestion; nocturnal restlessness; supra-orbital headache increased by light, noises, and by movements of the head; vertigo. Chills or rigors. Pain or a sense of weight or oppression at the epigastrium, left hypochondrium, and two inches under the left nipple. Tongue frequently small, red and irritable, or enlarged, with whitish or yellowish-white coating; perverted taste; anorexia; occasionally dysphagia and aphonia; thirst; craving for acid drinks; distressing nausea, retching and persistent vomiting; foul breath; fetid eructations; herpes labialis. Constipation or diarrhœa; feverishness; prostration. Collapse and hiccough. Jaundice is evidence of co existing duodenitis.

Differential Diagnosis.—From remittent and typhoid fevers in their first week; the vertigo from that of cerebral hyperæmia.

Treatment.—Abstinence and quiet. In grave cases, no food by the mouth, but nutrient enemata. If due to anything irritating in the stomach, free emesis, induced by copious draughts of warm water, sulphate of zinc, mustard, or ipecac. Emetics are very rarely indicated, as the contents of the stomach are usually completely removed by the vomiting which the disease causes. Weak alkaline mineral waters—Vichy, Hathorn, Congress—to be drunk freely; or pellets of ice to be used instead. A saline laxative. Opium hypodermically or per enema. Effervescing powders, carbonic acid water, milk and lime-water to check vomiting. Or, carbolic acid and tincture of iodine, equal parts, in drop doses, well diluted with water, every four hours. Or, a mixture of bismuth and carbolic acid with mucilage or mint water. If there be much prostration, brandy in small doses, well diluted, or a small quantity of champagne with soda water. After subsidence of acute symptoms, tincture of nux vomica and dilute hydrochloric acid to tone up the stomach and improve the appetite. Locally, poultices, fomentations, and counter-irritants over the abdomen are beneficial.

GASTRITIS, CHRONIC.

Synonym.—Chronic gastric catarrh.

Definition.—Chronic inflammation of the stomach.

Etiology.—A sequel of acute or subacute gastric catarrh. *Heredity;* bad hygiene; miasm; irregularities of life; abuse

of spirits; habitual use of highly seasoned food, condiments, and sauces; imperfect mastication; ices; over-feeding; hepatic obstruction; valvular disease of heart; albuminuria; some constitutional disorders.

Symptoms.—Dyspepsia; neuralgic pains diffused over the epigastrium, at times in the left hypochondrium. Pain may be relieved or aggravated by pressure; may be lightened or increased by taking food. Discomfort and feeling of painful distention after meals. Pyrosis, eructation, regurgitation. Heart displaced by distended stomach; palpitation, intermittent pulse; accentuation of second sound of heart; face congested, red, swollen; headache and vertigo during digestion. Vomiting of food (at times) soon after eating; the vomited matters are very offensive. Morning vomiting (in topers). Appetite diminished, capricious, rarely excessive. Certain kinds of food excite disgust. Saliva increased. Tongue pointed, red at tip and edges, mucous membrane glazed; papillæ at base swollen and tumefied. Follicular pharyngitis is present. Constipation and flatulence alternating with diarrhœa. Jaundice. Impaired nutrition, loss of strength and fat. Melancholia and hypochondriasis.

Differential Diagnosis.—From gastric ulcer; from cancer of the stomach; from dyspepsia.

Treatment.—If secondary to some other disease, treat the primary affection. Regulate diet. Exclude saccharine, starchy and fatty food, and substitute succulent vegetables —lettuce, celery, spinach, cauliflower, tomatoes, etc. Laxatives or stomach pump to empty the stomach. Exclusive use of skim-milk (about 4 oz. every three hours day and night when awake until symptoms cease, when gradual additions may be made. An occasional Seidlitz powder, now and then one drachm of Epsom salts in early morning, or Saratoga, Pullna, or Friedrichshalle waters. Counter-irritation to the epigastrium may afford relief.

Fowler's solution, gtt. i. or ij. t. i. d. before meals, continued for a month or more. Oxide of silver pills, gr. ss.–i. t. i. d. on empty stomach, not longer than for one month. Mineral acids (muriatic) to correct acidity. When acid is deficient, alkalies *before meals*. For abnormal fermentation, *carbolic acid, alone or with* bismuth. Charcoal for gaseous *eructations. After relief of* local conditions, tincture c *nux vomica or bitters.*

PRESCRIPTIONS.

℞ Infus. rhei ..... fl. ℥ss.
Tinct. gentianæ ..... ♏ xxx.
Sodii bicarb ..... gr. x.
Spir. chloroformi ..... ♏ x.
Aq. menth. pip ..... ad fl. ℥i.
M. S. To be taken before meals. For chronic gastric catarrh with flatulence.

℞ Sodii bicarb ..... gr. x.
Tinct. aurant. cort. ... ♏ xxx.
Infus. calumbæ ..... ad fl. ℥i.
M. S. To be taken before meals. For the same.

GASTRITIS, PHLEGMONOUS.

Synonyms.—Interstitial suppurative gastritis; gastritis submucosa.

Definition.—Inflammation of the walls of the stomach (generally the submucous layer) resulting in abscess or purulent infiltration of the parietes. Abscesses may be single or multiple, acute or chronic. The disease is of very rare occurrence.

Etiology.—Pyæmia; puerperal fever; hæmorrhagic infarction; hepatic obstruction; alcoholic excesses.

Symptoms.—Obscure. Initial chill. Elevated temperature. Sudden epigastric pain, followed by nausea and vomiting, thirst, weak and irregular pulse, great distention of abdomen, diarrhœa; prostration; low delirium; death.

Complication.—Acute peritonitis.

Differential Diagnosis.—From general peritonitis.

Treatment.—If the affection be recognized, based on general principles—rest of the diseased organ and relief of pain.

GASTRITIS, TOXIC.

Definition.—Acute inflammation of the stomach due to ingestion of irritant and corrosive poisons.

Etiology.—Is implied in the definition.

Symptoms.—Sudden occurrence of nausea, rapid uncontrollable vomiting of matter acted on by the poison, shreds of mucous membrane, altered blood-clots, etc. Intense pain of a burning character referred to the stomach. (The character of the stain on the lips, etc., may aid in the *recognition* of the poison.) Purging. Anxiety; depression; *weak, rapid* pulse; slow, shallow respiration; cold skin and *clammy* sweat; retracted features; internal heat and thirst; *burning in the* œsophagus and fauces, etc.

Treatment.—Encourage vomiting by demulcent

mouth, which is then the seat of ulcerations and pustules Submaxillary glands may be enlarged.

The general symptoms are typhoid in character, indicative of septicæmia. Prostration; dry brown tongue; rapid, feeble, irregular pulse. Diarrhœa and tympanites frequent; stools very fetid, sometimes bloody. Dyspnœa; hurried breathing; hard cough with scanty expectoration; weak voice; foul breath. Temperature may rise to 104–106° F. Delirium and coma; death usually occurs at the end of the second or beginning of the third week.

2. Chronic Glanders (is rare; usually a sequel of farcy); lassitude; articular pains; sore throat; painful sensation in the nose with puriform and bloody discharge; cough and expectoration; dyspnœa; altered voice. Later, ulceration of the mucous membrane of the nose, followed by caries and perforation. The pharynx may be ulcerated. No eruption. General symptoms less marked than in the acute form. Duration variable.

3. Acute Farcy: Differs from glanders chiefly in the non-implications of the nares. Eruption may be present Inflammations of the lymphatic glands and vessels; soft tumors under the skin (farcy buttons or buds).

4. Chronic Farcy: After constitutional symptoms, subcutaneous tumors form which change into abscesses, discharge, and leave foul, deep, indolent ulcers. Wasting and debility. The affection may end in true glanders, or death may ensue from exhaustion or pyæmia. Recovery may take place. Duration variable.

5. Equinia Mitis (due to an affection of the horse named "grease"): Fever; depression; shivering; pustular eruption drying into scabs which leave scars.

Treatment.—Prevention is of great importance. If inoculation occurs, the affected spot should be at once destroyed by an escharotic. Open the bowels freely at the onset and keep them soluble. Supporting, stimulating, and tonic plan of treatment; relieving symptoms; strict attention to topical cleanliness and hygienic conditions Abscesses to be opened as they form. Antiseptics internally (?). Iodine, arsenic, and strychnine have been recommended. During convalescence, change of air and good diet.

GLOSSITIS.

Definition.—Inflammation of the tongue. It may be acute or chronic.

Varieties.—Superficial (affecting mucous membrane); papilliform (limited to large basal papillæ); deep-seated (affecting the body of the organ).

Etiology.—*Superficial* variety: traumatism (hot liquids, steam, etc.). *Papilliform* variety: tobacco; syphilis. *Deep-seated* variety: mercurials; frequently secondary to erysipelas, typhoid, pyæmia, acute rheumatism, variola, etc.

Symptoms.—*Superficial* variety: swelling, redness, and desquamation of epithelium of mucous membrane on borders and dorsum of tongue. Taste impaired or lost; pain when sweets or acids are taken. Saliva increased.

Papilliform variety: basal papillæ are swollen and hyperæmic. Heat and smarting during mastication, deglutition, etc., especially of sapid or hot substances.

Deep-seated variety: tongue furred. Mucous membrane softened, swelled, disintegrated, and detached by fibrinous exudations. Interstitial exudation and infiltration; hyperplasia and induration (at times); patches of suppuration and abscesses; swelling of entire tongue endangering life; protrusion with marks of teeth; difficult mastication and deglutition; muffled voice; great pain; swelling and irritability of cervical glands; face puffy and cyanosed. General symptoms, fever, restlessness, anxiety; delirium (low muttering).

Treatment.—The *superficial* varieties require chiefly attention to diet; cleansing with potassium chlorate or sodium biborate solution. *Papilliform* variety: remove cause; treat the disease upon which it depends; local applications as in the other forms for temporary relief. *Deep-seated* variety: in vigorous subjects, leeches under angle of jaw or free scarification; fomentations to throat. Water, as hot as can be borne, to be held in the mouth, as long and frequently as possible. Ice may be freely used. Deep incisions in threatened asphyxia. Tracheotomy in extreme cases. Patient may require nourishment through flexible tube passed through nares and œsophagus or nutrient enemata. *Supporting alimentation* with alcoholics to counteract depression. *At onset*, quinine, gr. xv.–xx., with *morphine, gr. ¼, for adults*; also ammonia and other stimu

lants; later, 3–5 gr. of quinine with morphine, gr. ¼ every four hours. If swallowing be difficult, give remedies by the rectum. Suspend morphine on appearance of stupor. Electricity (static) for soreness of joints.

GOITRE, EXOPHTHALMIC.

Synonyms.—Graves' disease; Basedow's disease.

Definition.—A disease characterized by increased frequency of the heart's action, enlargement of the thyroid body, and exophthalmia.

Etiology.—Obscure. Heredity (?); anæmia (?); chlorosis (?); moral emotions (?). Is more common in women than in men, at the ages between puberty and thirty.

Symptoms.—The pulse varies in frequency from 90 to 150, in most cases is regular. The increased frequency is a very constant symptom, may continue for years, be increased additionally by exercise and excitement; palpitation frequently occurs, and hypertrophy may result. The thyroid gland is enlarged, usually equally upon both sides, may be unilaterally, is soft, elastic and pulsating, and a systolic murmur (usually loud) is audible over it. The increase in size varies in different cases; it may cause difficult breathing, hoarseness, or aphonia.

The eyeballs become more or less prominent; as a rule, the pupils are unchanged; the eyelids sometimes fail to cover the eyeballs; there is inco-ordination of the movements of the upper lid and the globe; that is, if the patient looks up or down, the lid does not follow the eyeball (said to be diagnostic and to precede the protrusion of the globe); keratitis and conjunctivitis (when the ball is left uncovered); the disposition becomes irritable; vertigo, headache, and wakefulness are often observed; digestion impaired; anæmia and amenorrhœa often coexist. The goitre or the exophthalmia, or, much more rarely, the accelerated cardiac action may be absent.

Treatment.—For the heart, tincture of aconite, one to five minims three times a day; hydrocyanic acid; belladonna; digitalis. For the anæmia, iron and quinia. The combination of quinia, belladonna, and ergot has been found effectual. Deep hypodermics of ergotine have reduced the thyroid enlargement. Galvanization of the cervical sympathetic and pneumogastric. Bromine salts. Careful attention to general health and nutrition. The

eyes sometimes require a protective bandage. Careful regulation of mental and physical hygiene. Excesses of all kinds should be avoided.

GOUT.

Synonym.—Podagra.

Definition.—A constitutional disease characterized by the deposition of urate of soda in a crystalline form in the cartilages and other textures of joints, and elsewhere among the fibrous tissues, and by recurrent attacks of articular inflammation. It is frequently attended with grave lesions of important organs.

Etiology.—Heredity; indulgence in strong wines and malt liquors, with excessive consumption of animal food and deficient exercise. (Excess of uric acid in the blood)

Predisposing Causes: Middle and advanced life; male sex; mental or physical fatigue; exposure; indigestion; worry; impaired health; lead in the system.

Symptoms.—1. Regular (Articular) Gout. *a.* Acute or Transient: Prodromal symptoms (often absent): Derangements of the alimentary canal, heartburn, acidity, portal congestion; palpitation of the heart; nervous disturbances; asthmatic attacks; profuse sweats; changes in the urine (either scanty and depositing much sediment, or very abundant and watery).

Actual symptoms: Seizure usually sudden, and occurring after midnight. The metatarso-phalangeal articulation of the great toe is generally first affected, but other joints may suffer primarily or secondarily. Extreme pain and tenderness aggravated at night; swelling due to effusion; the skin over the affected joint is red, tense, hot, and shining; œdema; pitting on pressure; superficial veins enlarged. The cuticle desquamates with the subsidence of the inflammation; troublesome itching. The symptoms are most marked in plethoric individuals of the male sex; less so in the anæmic and in females.

General symptoms are proportionate to the severity of the attack; chills or rigors, followed by fever and perspiration; morning remissions. Urine scanty and dark, depositing an abundance of urates. Restlessness and insomnia; frequently cramps in the legs. At the close of the paroxysm, critical perspiration or diarrhœa. Duration, four

days to several weeks; interrupted by remissions or intermissions. Recurrence usual, but not invariable; at first, once or twice a year; later, more frequently. In a short time, the joints suffer a permanent change.

b. Chronic or Persistent: The term is applied to cases in which the joints have become permanently changed in structure and form, and the attacks are frequent and chronic in character; other structures besides the joints are involved. Pain and fever are slight. The articulations become stiff, immovable, enlarged, nodulated, and deformed, owing to the deposits of urates within them. The skin above them is blue and congested; veins enlarged. It may rupture and expose or discharge masses of urates, chalkstones or tophi, or else suppuration and ulceration may be set up. Later, tendons, bursæ, periosteum, aponeuroses and sheaths of muscles, etc., become involved, and abscesses may form. The patient is usually weak and debilitated, and suffers from digestive disorders, palpitation or irregularity of the heart, irritability and restlessness, cramps, tic douloureux, etc. Urine pale, of light specific gravity, deficient in solids, often contains some albumen and casts. Urticaria, erythema, eczema or other eruption is frequently present.

2. Irregular (non-articular, misplaced, retrocedent) Gout. Internal parts instead of the joints are affected, either from the outset or by metastasis. Nervous disorders: mental disturbance, delirium or mania; epileptiform attacks; neuralgias; cramps; paralysis; meningitis (?); apoplexy; sciatica. Digestive disorders: gastritis, etc.; dysphagia; intestinal colic and diarrhœa; derangement of the liver. Cardiac disturbances: changes in the valves; fatty degeneration; tendency to syncope; constriction; dyspnœa, etc. Pulmonary affections: asthma; dry bronchial catarrh with cough; pulmonary congestion. Urinary complaints: deposits of urates in the tubules of the kidney extending into the intertubular tissue; contraction and induration of the kidneys; chronic cystitis and urethritis; gravel and calculus; oxaluria.

Complications and Sequelæ.—See symptoms of *Irregular Gout.*

Differential Diagnosis.—From rheumatism; from *rheumatoid* arthritis.

Treatment.—During the paroxysm: A brisk purgative

with similar symptoms and colicky pains; tarry stools (melæna).

Sequelæ.—Double and permanent amaurosis; pallor of the optic papillæ, and attenuation of retinal arteries.

Differential Diagnosis.—From vomiting the juices of colored fruits; from bronchorrhagia; from hæmoptysis; from intestinal hemorrhage.

Treatment.—Depends on the cause. Perfect rest. If due to vicarious menstruation, such measures as tend to restore the function normally. If due to arrested hæmorrhoids, leeches to anus; aloes. If due to impoverished conditions of the blood or hæmophilia, vascular tonics; pellets of ice to be swallowed; ergotin subcutaneously (gr. iij. to vi.); ice to epigastrium; hot stimulating foot-baths; sinapisms and dry cups; large draughts of alum-whey every few minutes; salts of iron (*e. g.*, tincture of chloride of iron, a teaspoonful in four ounces of ice-water); gallic acid in frequent (gr. v. to x.) doses; turpentine; sulphuric acid; morphia hypodermically; alcohol, if indicated, per enema. In syncope, inhalation of amyl nitrite; subcutaneous injection of ether, a syringeful every few minutes. Exclusive milk diet for some days, supplemented by rectal injection of defibrinated blood.

HÆMOPHILIA.

Synonyms.—Hæmatophilia; bleeder disease; hemorrhagic diathesis.

Definition.—A congenital hemorrhagic diathesis; bleeding occurs unexplained by any of the recognized causes of hemorrhage, such as mechanical changes in the blood-vessels, etc.

Etiology.—Heredity (especially in the male).

Symptoms.—Hemorrhages occur either externally or interstitially; they may be traumatic or spontaneous. The blood escapes, and persists despite the most powerful hæmostatic measures; extreme anæmia results, with the symptoms characteristic of that condition; consciousness may be lost, and death occur in syncope. Hallucinations and convulsions may occur. Petechiæ and ecchymoses, due to extravasated blood; they may be absorbed or may separate. Recuperation between successive attacks is usually rapid.

Complications.—Neuralgia; rheumatism; toothache; *myalgia.*

Treatment.—*Injuries* and operations should be guarded

against, and bleeding arrested by pressure and cold where practicable; internal hæmostatics are also to be prescribed.

The general health should be improved by nutritious diet, hygiene, out-door life, and tonics. Treat the anæmia according to indications.

HÆMOPTYSIS.

Synonyms.—Pulmonary hemorrhage; broncho-pulmonary hemorrhage; bronchial hemorrhage.

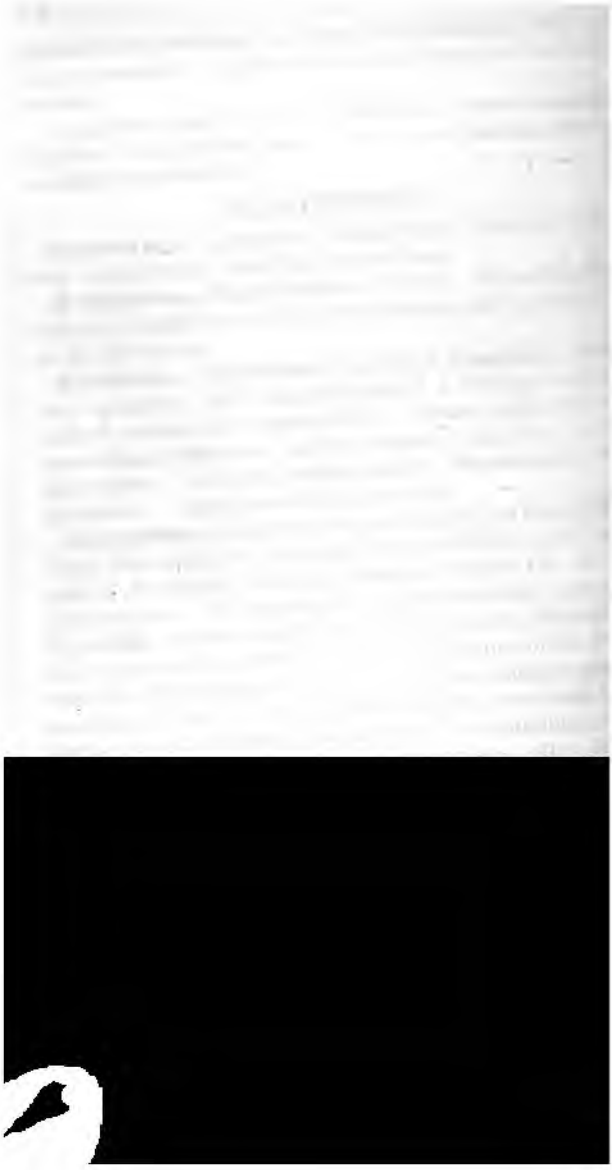
Definition.—Expectoration of blood. Bronchial hemorrhage is meant when the term hæmoptysis is used without qualification.

Etiology.—Traumatism; rupture of aneurisms; pulmonary gangrene; pulmonary apoplexy; hydatids; straining; irritant inhalations; hæmophilia; diseases attended by a hemorrhagic diathesis; cardiac diseases; phthisis; embolic pneumonia; vicarious menstruation; occasionally with pregnancy. It may occur idiopathically.

Symptoms.—Vary with the amount of the hemorrhage. Heat, oppression, and a feeling of constriction in the upper part of the chest; trickling sensation behind the sternum (premonitory). It may occur without warning, especially if profuse. It may occur without symptoms, especially if the hemorrhage is small, except the spitting of the blood, which is of a bright, arterial color. The blood is usually spumous or frothy; when expelled rapidly, this characteristic is absent. Usually, slight efforts of coughing. Pale, anxious countenance. Patient tremulous, often faints, usually in consequence of shock, rather than from loss of blood. Later, a troublesome hacking cough may be a prominent symptom. The cough may be accompanied by fever, tenacious muco-purulent expectoration, hurried respiration, and dyspnœa upon slight exertion (broncho-pneumonia). Physical examination during a bronchial hemorrhage usually gives nothing more than a few moist bronchial râles.

Differential Diagnosis.—From local hemorrhages; from vicarious menstruation; from hæmatemesis; from dedeception on the part of the patient (soldiers, criminals, *hysterical* women, etc.).

Treatment.—Perfect rest in a cool room. A moderate *or slight hæmoptysis* does not require absolute rest. Ice *and cold drinks*; ergot in full doses, or subcutaneous injec-



tions of ergotin; gallic acid; acetate of lead and opium; alum; mineral acids; fluid extract of ipecac, combined with ergotin, opium, and digitalis. Salines with mineral acids. Ice to the chest and to the nucha (?). Counter-irritants (?). Inhalations of a spray of a weak solution of liquor ferri subsulphatis, ♏ x., in water ad fl. ℥ i. For prolonged spitting of blood, small quantities for days or weeks, inhalations of the vapor of the oil of turpentine (place a small quantity in an earthen dish floated on hot water). The efficacy of astringents or styptics has been strongly doubted. Dry cupping, sinapisms, and stimulating foot-baths may be serviceable. Ligation of one or more of the extremities to interrupt the flow of venous blood (the ligation should not be long continued). Table salt in teaspoonful doses, swallowed dry, is a popular remedy in all countries.

PRESCRIPTIONS.

℞ Pulv. ergot. exsiccat.,
Acid. gallici.....āā ʒ ss.
Extract. gentian..... ....q.s.
M. Div. in pil. No. x. S. One every four hours.

℞ Balsam Tolutani ..... ʒ i.
Ferri sesquichlorid..... .℈ ij.
Aquæ fervent.....O.i.
M. Inhalations.

HAY FEVER.

Synonyms.—Hay asthma; rose cold; autumnal catarrh; June cold, etc.

Definition.—An acute catarrh or a functional disease of the nervous system, occurring at a fixed period annually, and disappearing after a variable duration.

Etiology.—Heredity; the inhalation of various substances, vapors, pollen, etc.; infusoria in the nasal passages (?). Essential cause not understood.

Sypmtoms.—Itching, congestion, and swelling of the conjunctivæ and eyelids; watering of the eyes; perhaps photophobia; congestion, tumefaction, and watery discharge from the nostrils; frequent and violent sneezing; irritation of the throat, fauces, and soft palate; more or less cough and asthma. The symptoms are sudden in their onset, and paroxysmal in character.

Treatment.—Before the expected attack, quinia, gr. v. t. i. d., or gr. ij. t. i. d. and continued throughout the course of the disease; arsenic in small doses for some time; during the attack, irrigating (atomizer, perhaps, better) the nares *with solution of muriate* of quinia, gr. ij., in water, ℥i., *two or three times* a day; tincture of euphrasia, three to

to five drops, three or four times daily; potassium iodide, gr. xv. every four to eight hours; minute doses of morphia sulphate, gr. $\frac{1}{6}$, with atropia, gr. $\frac{1}{100}$; alcohol if it agrees with the patient; mild galvanic current; caffeine; carbolate of iodine thoroughly applied by nasal syringe (atomizer probably much better) (acidi carbolici ʒ iij., tinctura iodinii ʒ v., use from one to five minims to a gill of water); insufflation of powders (objected to by some) containing morphia one part, quinia one part; bismuth twenty parts, acacia thirty-eight parts. Change of climate. Daily movement from the bowels. Flannel next to the skin. For the cough, mild narcotics and stimulants. For the asthma, remedies employed in that affection. Nourishing diet and tonics.

PRESCRIPTIONS.

℞ Fowler's solution ..... ℥ i.
Tinct. belladonna..... ... ʒ ij.
M. S. Five to ten drops after meals as a prophylactic.

———

℞ Tinct. iodin. co.,
Ether. acetic ..... āā ℥ ss.
M. Drop fifteen drops upon a sponge in a tube that can be heated so that the vapor which arises can be driven, by a continuous current of air, in thorough contact with the inflamed mucous membrane of the nose.

Of the above twenty drops, or twenty-five drops of the spirits of camphor, or the same quantity of paregoric may be added to a pint of warm water and the steam inhaled through the nostrils.

———

℞ Quiniæ.....1 part.
Aquæ..... .....750 parts.
M. Irrigate the nostrils with the solution.

———

℞ Sodii biborat..... ..... ℈ iss.
Aquæ amygdal. concent... ℥ iss.
Liquor. plumbi subacetat.. ʒ iij.
Aquæ. ..... ℥ iv.
M. S. Add three teaspoonfuls to four ounces of cold water and apply to the closed lids when they are swollen.

℞ Liquor. potass. arsenit.... ♏ ij.
Potass. iodid.... .....gr. ij.
Liquor ammon.....♏ v.
Aqua.....ʒ i.
M. To be taken t. i. d. when bronchial symptoms are developed.

———

℞ Aquæ camph .....℥ iv.
Quin. sulph..... .....grs. vi.
Sodii chorid.... ..... ʒ ss
Aquæ.. ....℥ iv.
For use with an atomizer, or snuffed from the hand, or poured into the nostrils, after the disease is established.

———

℞ Sodii biborat.....grs. v.
Aquæ camph..... ℥ i.
M. Collyrium for the inflamed conjunctivæ.

———

℞ Acid. carbolic.....gr. i.
Aquæ.....℥ i.
M. For asthma; used with an atomizer.

Inhalations of nitrite of amyl, chloroform or simple steam frequently relieve the asthma.

———

℞ Ammon. bromid..... ... ʒ i-ij.
Aquæ.... .. .. ℥ i.
M. S. Use as a gargle frequently. A solution of the same salt 10 to 30 grains to the ounce of water and gently snuffed into the nostrils.

This preparation may be used with an atomizer.

HEART—ENDOCARDITIS, SIMPLE.

Synonym.—Plastic endocarditis.

Definition.—Inflammation of the endocardium.

Etiology.—The affection is almost invariably secondary, and complicates articular rheumatism, pleurisy, pneumonia, pericarditis, myocarditis, Bright's disease, eruptive fevers, etc. The disease may precede the joint trouble in rheumatism.

Symptoms.—Exceedingly obscure. Chill may occur (high temperature during the chill). Dull pain or distress in the precordia (may be absent); increased frequency and quickness of the heart's action (may be irregular); palpitation; temperature rises one or two degrees; headache; tinnitus; some dyspnœa; pulse at first frequent, full, and excited; later, feeble, small, and irregular. These symptoms are often not marked and may be wanting; but occurring in the course of acute articular rheumatism without new joint manifestations or the supervention of any other disease they suggest the existence of endocarditis.

Physical Signs.—A positive diagnosis rests upon the development of an endocardial murmur which did not previously exist. An intra-ventricular or mitral systolic non-regurgitant murmur; a soft blowing systolic murmur heard with the greatest intensity at the apex. With valvular lesions and enlargement of the heart previous to the attack of rheumatism or other diseases, positive diagnosis cannot be made.

Differential Diagnosis.—From pericarditis; from functional disorders.

Treatment.—Treat the primary affection. Absolute rest, not only during the acute stage, but during convalescence. Carefully protect the surface from cold; counter-irritation by sinapisms and stimulating liniments; infusion of digitalis, one tablespoonful every four hours if the heart begins to fail; opium in small doses to secure rest; carbonate of ammonium, gr. x., in the solution of the acetate, ℥ss., every four hours, after exudation has occurred (?). Aconite, gelsemium, to allay cardiac excitement.

HEART—ENDOCARDITIS, ULCERATIVE.

Synonyms.—*Diphtheritic* endocarditis; septicæmic endocarditis; *malignant* endocarditis.

Definition.—Inflammation of the endocardium, characterized by ulcerations and diphtheritic exudations, with colonies of micrococci, followed by septic infection and multiple embolisms.

Etiology.—Puerperal fever; diphtheria; chronic plastic endocarditis; pyæmia; septicæmia.

Symptoms.—The local are usually masked by the general symptoms, which are either typhoid or pyæmic in character. Chill, fever, and great prostration. The proof of the endocarditis is the same as in the simple or ordinary form.

Complications.—Pulmonary infarctions and pneumonia; enlargement of the spleen; albuminuria and hæmaturia; apoplectic attacks and hemiplegia; multiple abscesses.

Differential Diagnosis.—From typhoid fever; from pyæmia and septicæmia.

Treatment.—Supporting, stimulating, and symptomatic. Ammonium benzoate or salicylic acid freely as antiseptics; ammonium carbonate as solvent of blood-clots and fibrin (?); quinine (large doses) and morphia (soothing doses) during the first few days if the case is diagnosticated early.

HEART—ENLARGEMENT.

Synonyms.—Hypertrophy of the heart; dilatation of the heart.

Definition.—An increase in the size of the organ, either because of an addition to its substance or by dilatation of its cavities.

Forms.—Simple hypertrophy (increase in size without alteration of the cavities); eccentric hypertrophy (hypertrophy with dilatation, the former in excess); dilatation with hypertrophy (dilatation more marked); simple dilatation (dilatation with attenuation of walls).

Etiology.—Valvular lesions of the heart; chronic pericarditis; dilatation of the cavities (compensatory hypertrophy); myocarditis (dilatation); new growths in the heart; obstruction to the current of blood by pressure (tumors); *weakening* of the cardiac muscle from degeneration (dilatation); endocarditis and pericarditis (dilatation); pulmonary emphysema; pleuritic effusions; stenosis of the pulmonary artery; spinal curvature; atheroma of the aorta and larger arteries; narrowing of the calibre of the aorta; hypertrophy

PRESCRIPTIONS.

℞ Hoffman's anodyne,
Sol. morph. (U. S. P.) ....āā ʒ i.
M. S. Teaspoonful p. r. n. to relieve the dyspnœa.

℞ Ext. quebracho.... .....fl. ℥ss
Aquæ ....ʒ i.
M. S. Teaspoonful every three hours for dyspnœa.

HEART, FATTY DEGENERATION.

Synonyms.—Obesity of the heart; fatty infiltration (or deposition or growth) of the heart; fatty metamorphosis of the heart; Quain's disease.

Definition.—An accumulation of adipose tissue upon the surface of the organ and between the muscular fibres; another form consists of fatty degeneration or infiltration of the muscular structure itself (most serious).

Etiology.—General obesity, especially in elderly persons; cancer, phthisis, and other wasting affections; indolence and dietetic indulgence; chronic alcoholism; phosphorus poisoning; acute infectious diseases; malnutrition; myocarditis.

Symptoms.—Persistent weakness of the heart's action; pulse feeble, irregular, intermittent, infrequent (40 to 20), rapid, and then suddenly irregular and slow (there is good authority for believing that infrequency of the pulse denotes merely a neurosis). Cheyne-Stokes respiration; faintness or fainting; precordial distress; palpitation; angina pectoris; dyspnœa on slight exertion; want of breath and panting on exercise; œdema of the legs and the body; ascites; albuminuria.

Physical Signs.—The exclusion of valvular lesions and enlargement of the heart is necessary to a diagnosis. Palpation: apex impulse weak. Percussion: area of precordial dulness normal. Auscultation: first sound feeble or absent; both sounds may be confused and almost inaudible; may exist without giving rise to either rational symptoms or physical signs.

Differential Diagnosis.—From cardiac dilatation.

Treatment.—Iron, manganese, and sulphate of strychnia in combination; elixir of phosphate of iron, quinia, and strychnia; digitalis may be serviceable; inhalations of oxygen; cod-liver oil; general faradization; nutritious diet; moderate exercise (not to give discomfort); good hygiene; avoidance of undue exertion or mental excitement; guard against cold. Treat symptoms as they arise.

HEART, FUNCTIONAL DISORDER OF THE.

Definition.—Disturbed action of the heart independent of either inflammation or structural lesions. A disorder may be functional, although lesions exist; as, for example, a patient with organic disease of the heart may have palpitation as a functional disorder irrespective of the organic affection. Functional disturbance of the heart, in consequence of anæmia, is not uncommon, and it may occur with organic disease, but without the relation of cause and effect. This is an important practical point to be decided in individual cases.

Inorganic Murmurs.

The mitral direct murmur may occur without mitral lesion, but under those circumstances there is free aortic regurgitation. The mitral systolic murmur cannot be called an inorganic murmur, and yet it may be a question whether or not it indicates important lesion.

It is with reference to the aortic direct murmur chiefly that the question will arise whether or not it is an inorganic murmur.

Palpitation, etc.

The form of functional disorder most commonly met with is palpitation. It occurs in paroxysms which may be of brief duration or continue for hours or even days. The paroxysms may be violent and tumultuous, or they may be simply a feeble fluttering action of the heart with very greatly increased frequency of beat.

The heart's action may be abnormally frequent, persistently, for months or years, the pulse being 100 or more per minute.

The heart's action may also be abnormally infrequent as a functional disorder, the pulse varying from 40 to 26 per minute. A pulse not above 40 per minute is consistent with health. The pulse may not represent the ventricular systoles; this fact must not be overlooked.

The heart's action may be intermittent. In some cases, this is the chief characteristic of the functional disorder. Intermittency recurring irregularly or regularly, may be a normal peculiarity. It is not uncommon in middle or advanced life, as an acquired peculiarity. In this instance also, the pulse may not indicate the heart's action correctly.

Besides these varieties of functional disorder, there are inequality of the heart's action and reduplication of heart sounds.

Diagnosis.—A positive diagnosis is made by excluding inflammations and structural lesions. The action of the heart is frequent and forcible in functional disorder, the first sound is loud, short, and valvular.

Treatment.—For violent paroxysms of palpitation, opium (hypodermically); for mild ones, compound spirits of ether; antispasmodics; stimulants if the heart is weak; sinapisms or cold to the precordia; stimulating pediluvium if the extremities be cold, etc. Aconite in persistent increased frequency with palpitation, ♏ i.–iij. of the tincture three times a day or more. Anæmia and indigestion (a very frequent cause) must be appropriately treated. Remove the cause, such as the use of tobacco, excessive use of coffee and tea, sexual excess, mental depression. Recurrences of functional disorder do not produce structural disease. Convallaria or caffein, in some cases.

PRESCRIPTION.

℞ Tinct. digitalis .... ʒ ij.
Tinct. aconit. rad.,
Tinct. verat. virid.....āā ʒ i.
M. S. Three or four drops three times a day for palpitation.

HEART, HYDROPERICARDIUM.

Synonym.—Pericardial dropsy.

Definition.—A non-inflammatory accumulation of serum in the pericardium. It is usually a part of general dropsy.

Etiology.—Diseases or neoplasms which interfere with the return of blood through the veins—tumors, obstructive pulmonary disease, emphysema; dyscrasia—renal and cardiac diseases, cancer, tuberculosis.

Symptoms.—Are absent if the effusion be small. If considerable, there are evidences of fluid in the pericardial sac, but there are no friction sounds.

Differential Diagnosis.—From pericarditis; from cardiac hypertrophy.

Treatment.—Treat the diseased condition which gives rise to or permits the effusion.

HEART, MYOCARDITIS.

Synonyms.—Fibroid degeneration of the heart; sclerosis of the heart; abscess of the heart.

Definition.—Inflammation of the muscular tissue of the heart; it occurs in two forms—suppurative myocarditis (abscess of the heart) and interstitial myocarditis (indurative or fibrous myocarditis).

Etiology.—Often obscure. Endocarditis and pericarditis (by contiguity of tissue); acute articular rheumatism; embolism of the coronary arteries; acute infectious diseases —typhoid, scarlet fever, pyæmia, septicæmia, etc.

Symptoms.—Obscure. Cardiac action rapid, weak, and irregular in the course of an acute endocarditis or pericarditis; pyrexia of adynamic type; blood poisoning and collapse; symptoms of multiple embolisms. In a large majority of cases it is impossible to make a positive diagnosis.

Treatment.—Is symptomatic chiefly. Stimulation, quinia and digitalis; utmost quietude of body and mind; generous diet; means to promote digestion; nutrition to its highest point. Convallaria, caffein.

HEART, PARENCHYMATOUS DEGENERATION.

Synonyms.—Granular degeneration; albuminoid degeneration; cloudy swelling of the heart; fatty metamorphosis.

Definition.—An albuminous degeneration of the muscular structure of the heart.

Etiology.—Acute infectious diseases—typhus, typhoid, puerperal, exanthematous fevers, erysipelas, cerebro-spinal meningitis, pyæmia; poisoning by phosphorus, arsenic, antimony, etc.

Symptoms and Signs.—Those indicative of great feebleness of cardiac action. May exist without giving rise to symptoms.

Treatment.—Supporting and symptomatic. [Myocarditis.]

HEART—PERICARDITIS, ACUTE.

Synonym.—Inflammation of the pericardium.

Definition.—*Inflammation* of the pericardium which *may be limited (partial,* circumscribed) or general (diffused

Etiology.—Trauma; perforation; extension of inflammation from neighboring parts; irritation by some new-formation. Occurs also as a complication of scarlatina, variola, puerperal fever, the essential fevers, albuminuria, pyæmia (effusion apt to be purulent), scorbutus, gout, rheumatism, etc.; cold (?); most frequently associated with acute articular rheumatism.

Symptoms.—In a large percentage of cases the disease is unrecognized. First stage: pain referred to the precordia (increased by deep inspiration); increased frequency of respiration; cardiac palpitation; pulse increased in force and frequency; facies suffering and anxious; precordial tenderness. In the secondary form especially, the symptoms are not distinctive at first; precordial pain and oppression may be present.

Second stage (effusion of liquid): pain and soreness diminish (perhaps disappear); countenance anxious; tendency to syncope (may be sudden and fatal); pulse feeble, frequent, or irregular; further increase in the frequency of respiration; dyspnœa; sometimes orthopnœa; precordial oppression; voice husky and feeble (sometimes aphonia); dysphagia (at times); dry spasmodic cough; cyanosis; venous pulsation; vomiting; headache; sleeplessness; mental aberration with attacks of acute mania; coma, chorea, and tetanic convulsions may occur; death from functional nervous disturbance, failure of cardiac action.

Third stage: absorption of the effusion and gradual return to the normal condition.

Physical Signs.—First stage: excited cardiac action; pericardial friction sound; pericardial friction fremitus.

Second stage: disappearance of the friction sounds; in young subjects there may be bulging in the precordial region; apex-beat displaced upward to the left, and becomes feeble or imperceptible if the effusion is large; increased area and degree of precordial dulness; heart-sounds distant on auscultation; first sound shortened, weakened, and valvular in quality. Diminution of vocal fremitus and resonance in the precordia; absence of respiratory murmur over the pericardial sac.

Third stage: the area of precordial dulness diminishes as the effusion is absorbed; bulging disappears; respiratory and friction sounds return; apex resumes its normal position; heart-sounds become more distinct. Adhesion of the two

pericardial surfaces may be entire, but this condition cannot, as a rule, be recognized positively by physical signs.

Differential Diagnosis.—From endocarditis; from hydropericardium; from pleurisy; from cardiac hypertrophy; from pneumonia; from pleurodynia.

Treatment.—Must have reference to the pericardial inflammation and to the associated disorders. First stage: quinia sulphate, gr. x.; cinchonism to be maintained for twenty-four or forty-eight hours; a few leeches in robust subjects; anodyne fomentations or poultices; opium in sufficient quantity (only) to relieve pain and allay the irritable action of the heart. Quinia may be given as an antipyretic.

Second stage: painting the precordia with tincture of iodine; flying blisters; diuretics and hydragogue cathartics cautiously; sustain nutrition; tincture of iron in full doses; tonics; alcoholics. If the heart flags, infusion of digitalis, a tablespoonful every four hours. Paracentesis by aspiration (great care must be exercised) may be required. Relieve symptoms. Everything which accelerates the heart's action must be avoided. The patient, from the beginning, should be kept absolutely quiet, and should not be allowed to get out of bed.

Third stage: guard against undue excitement by exercise, emotions, etc.; nutritious diet; tonics; gentle out-door exercise; good hygiene.

HEART—PERICARDITIS, CHRONIC.

Definition.—A form of pericarditis in which the pericardial surfaces are firmly adherent. Usually there is more or less liquid in the sac, and in some cases the quantity is large. It usually follows acute pericarditis. It may be subacute or chronic from the beginning. It is a rare affection. It occasionally exists in persons who are apparently in good health.

Etiology.—Is implied in the definition.

Symptoms.—(May be absent.) Uneasiness or dull pain over the cardiac region; disturbed heart's action; palpitation on slight exertion; dyspnœa; inability to breathe in the horizontal position; bronchial catarrh; gastro-intestinal catarrh; *albuminuria; cyanosis;* general dropsy; aphonia; difficulty *of swallowing; hiccough.*

Physical Signs.—Evidences of fluid in the pericardium; depression of precordial region during systole (if the pericardium is adherent to the costal pleura); displacement of the apex; increased area of dulness; obliteration or bulging of intercostal spaces.

Differential Diagnosis.—From hydropericardium; from cardiac hypertrophy.

Treatment.—Rest. Improve appetite and digestion by bitters, mineral acids, and ferruginous tonics; digitalis.

PRESCRIPTION.

℞ Ferri sulphat ..... ʒi.
Quiniæ sulphat..... ʒij.
Morphiæ sulphat..... gr. i.
Digitalis..... ʒi.
M. ft. pil. No. xx. S. One pill three times a day.

HEART—PERICARDITIS, HEMORRHAGIC.

Definition.—A form of pericarditis in which the fluid in the pericardial sac is blood.

There are no means of determining the presence (puncture excepted) of the blood prior to death.

It begins in a cachectic condition of the patient. The rational symptoms are more grave than in the other forms, because the disease occurs in a constitution already depressed.

HEART—PNEUMO-PERICARDITIS.

Synonyms.—Pneumo-pericardium; pneumo-hydro-pericardium.

Definition.—Air and liquid in the pericardial sac.

Etiology.—Perforating wounds of the thorax; perforation of the pericardial sac by ulceration and admission of air from some organ.

Physical Signs.—Tympanic percussion sound over the *precordia.* Tinkling or splashing sound heard directly over *the heart.*

Differential Diagnosis.—From pneumothorax; from *pulmonary* cavities.

Treatment.—Entirely symptomatic.

HEART—RUPTURE.

Definition.—The so-called spontaneous rupture of the heart, in contra-distinction to rupture by wounds and injuries, may occur in either ventricle.

Etiology.—Fatty degeneration of the heart; myocarditis; great dilatation; cardiac aneurism; abscess or gangrene; ulcerative or other destruction of the endocardium; hemorrhage into its walls; calcification; parasitic formations. It rarely occurs in persons under sixty years of age.

Symptoms.—Death may take place almost instantly, usually preceded by a shriek; otherwise, pain; oppression and dyspnœa; shock and collapse. It may be partial at first, and completed some time afterwards.

HEART—VALVULAR LESIONS.

Definition.—Alterations in the structure of the valves or of the orifices, rendering the former incapable of closing the latter. The lesions may be of two kinds: obstructive (stenosis) or regurgitant (insufficiency).

Varieties.—Mitral insufficiency; mitral stenosis; aortic insufficiency; aortic stenosis; tricuspid insufficiency; tricuspid stenosis; pulmonary insufficiency; pulmonary stenosis. Of these, as indicated by murmurs, two, three, or four may exist in combination.

Etiology.—Acute and chronic endocarditis; chronic endarteritis; atheromatous degeneration; laceration of a valve from injury; atrophy of the valves; congenital malformation; enlargement of the cavities of the heart; fibrinous deposits from the blood, etc.

Mitral Insufficiency (Regurgitation).

Physical Signs.—A murmur heard with the first sound and extending into the interval of repose, loudest at the apex, or a little to the left, diffused to the left on a level with the apex, often audible about and within the lower angle of the left scapula, and heard in the left intervertebral groove from the fifth to the ninth dorsal vertebra. Increased intensity of the second sound of the heart, just *above the third rib*, on the left side over the pulmonary *valves*. *Pulse irregular* in volume, later irregular in time

may be small and feeble or full and compressible; never jerking. Mitral regurgitation rarely occurs without the murmur.

Mitral Stenosis (Obstruction).

Physical Signs.—A prolonged murmur, blubbering in quality, heard just before and cut short by the first sound of the heart; limited to a circumscribed area around the apex, and heard with its maximum intensity just to the right or above the apex. The presystolic murmur is not always present. There is usually a purring thrill over the apex. The murmur may exist in free aortic regurgitation without mitral lesion. The pulse is regular, feeble with extensive stenosis; force not increased even under excitement.

Aortic Insufficiency (Regurgitation).

Physical Signs.—A murmur either taking the place of or following the second sound of the heart, heard with greatest intensity over the second intercostal space close to the right edge of the sternum or close to the sternum on the left side, at the junction of the fourth costal cartilage. It is diffused over a large area. It is transmitted downwards. Its intensity may be greatest at the lower end of the sternum. It may be heard at the apex. It is sometimes heard at the sides of the chest and along the spinal column. The presence of the murmur is positive proof of valvular incompetency. Pulse jerky, abrupt, and hard ("water-hammer," "Corrigan pulse"), but regular. It is with free aortic regurgitation chiefly that there is danger of sudden death with valvular lesions of the heart.

Aortic Stenosis (Obstruction).

Physical Signs.—A murmur synchronous with the first sound (it may entirely replace it or the first sound may be heard and the murmur follow) heard with greatest intensity at the second sterno-costal articulation on the right side, transmitted upward so that it may be heard over the carotids. Intensified second sound over the pulmonic valves. Feebleness or absence of the aortic second sound. Pulse small, compressible, and jerking.

Tricuspid Insufficiency (Regurgitation).

Physical Signs.—A murmur with the first sound of *the heart*, superficial, rarely audible above the third rib.

loudest between the fourth and sixth ribs, along the left border of the sternum, rarely heard to the left of the apex-beat, and transmitted to the right rather than the left, and not transmitted upward. Extensive area of visible cardiac impulse. A venous pulse (jugular) points to tricuspid regurgitation, although it is sometimes present without a tricuspid regurgitant murmur. Tricuspid regurgitation frequently occurs without tricuspid lesions.

TRICUSPID STENOSIS (OBSTRUCTION).

Physical Signs.—(Exceedingly rare.) A presystolic murmur, blubbering in quality, heard before the first sound of the heart, and localized at the right border of the heart.

PULMONIC INSUFFICIENCY (REGURGITATION.)

Physical Signs.—A diastolic murmur heard with greatest intensity over the pulmonic valves. (Its occurrence has been doubted.)

PULMONIC STENOSIS (OBSTRUCTION).

Physical Signs.—A murmur heard with the first sound of the heart (systolic), loudest over the second intercostal space, close to the edge of the sternum, and not transmitted into the carotids. It is superficial and very limited in its area of diffusion. An inorganic pulmonic direct murmur is of frequent occurrence.

Complications.—Heart-clots; chronic congestion of various organs; hemorrhagic infarctions in the lungs; pulmonary stasis with bronchial catarrh; œdema of the lungs; dropsical effusions; gastric catarrh; obstinate diarrhœa; nutmeg liver; congestion and atrophy of the kidneys; cerebral embolism, etc., etc.

Treatment.—Lesions giving rise to cardiac murmurs may be carried for years without giving rise to symptoms. Valvular lesions rarely produce symptoms before the supervention of enlargement of the heart, and grave consequences do not follow, as a rule, until dilatation predominates over the hypertrophy. Patients will live longer and enjoy a more comfortable degree of health with mitral regurgitation than with any other extensive valvular lesion. *Prior to the development* of cardiac enlargement the treat*ment is restricted to* precautionary measures. There are no

special indications so far as removal of the lesion is concerned. The probabilities of the increase of the lesion must be considered, and an endeavor made to render it as slow as possible. Exercise is essential, and will do the patient no harm if it be limited to that which can be taken *with entire comfort.* Exercise, either physical or mental, either by quality or quantity, which occasions discomfort should be avoided entirely. Sustain nutrition. Improve the condition of the blood by improving the general condition of the system. Put the system in that condition which will best tolerate an affection that must continue and increase. [See Hypertrophy and Dilatation of the Heart.]

Shortness of breath on exertion is usually the symptom first complained of. As a rule, organic lesions of the heart are unattended by pain.

HEMORRHAGE, CEREBRAL.

Synonyms.—Sanguineous apoplexy; cerebral apoplexy.

Definition.—Rupture of a vessel and escape of blood into the brain substance.

Etiology.—Structural changes in the blood-vessels (atheroma, fatty degeneration, aneurismal dilatations, etc.), increased blood-pressure, as from hypertrophy of the left ventricle, fibroid kidney; straining; a fit of coughing; intoxication; compression of the jugulars or superior vena cava, etc.

Predisposing Causes: Of most frequent occurrence before six and after thirty-five years of age; Advanced age (ratio and mortality increase with the age from twenty to fifty and are still higher after fifty); male sex; heredity; luxurious habits and want of exercise; general plethora.

Symptoms.—*Prodromal* (may be absent): Sense of fulness; headache; vertigo; tinnitus; flushing or pallor of the face; confusion of mind; irregularity of heart's action; changes of disposition; tingling or numbness of one or more members, etc. (see Endarteritis).

Actual: Usually sudden occurrence of unconsciousness (consciousness may be retained, or only slightly disturbed and for a short time); hemiplegia; respiration slow, usually stertorous; pulse slow (may be frequent and full); face flushed or livid, with paralysis of the muscles of one side (lowering of the angle of the mouth, etc.); pupils may be contracted,

dilated, or unequal; loss or marked impairment of sight and hearing very rare; the tongue is protruded with difficulty and deviates to the paralyzed side; sometimes unilateral convulsive movements; temperature on the paralyzed side elevated; general temperature at first may be one or two degrees below normal, later normal or slightly above; if fatal, a marked, sometimes great rise before death. The coma may last for a few moments or for days. Reflex excitability is usually abolished. The hemiplegia may precede the coma and may be sudden or gradual. In the severe cases, the coma is profound, the pulse and respiration are slow, all the limbs are relaxed, the pupils are immobile, reflex movements are abolished, the sphincters are relaxed, etc. Death may rapidly succeed the coma; or consciousness may be restored, and the patient pass into imbecility. Some days after the attack, inflammatory symptoms make their appearance (elevation of temperature, etc.) and have been regarded as characteristic of cerebral hemorrhage and opposed to cerebral embolism. Hemiplegia persists. Atrophy of the muscles usually occurs.

Differential Diagnosis.—From syncope; from epileptic coma; from hysterical coma; from uræmic coma; from profound intoxication; from opium poisoning; from congestive apoplexy; from hemiplegia due to embolism or thrombosis, tumors, or abscesses of the brain.

Treatment.—If the prodromal symptoms are recognized, venesection (or leeches to the mastoid in feeble subjects); an active cathartic (compound extracts of colocynth, gr. vi., with croton oil, gtt. i.); counter-irritants to the extremities; ice to the scalp (see Endarteritis). If after the attack there is evidence of increased vascular tension, turgescence or intense redness of the face, injection of the conjunctiva, forcible pulse and elevated temperature, the patient of middle age and robust, venesection and other antiphlogistic measures may be adopted. In other cases it may be important to give stimulants to increase the heart's action. Rest in a shaded room with the head raised; ice-cap; stimulating pediluvia. After the coma has passed off, tincture of aconite root, gtt. i.-ij., every four hours for a day or two if the heart is active; cool applications to the head; sinapisms to the *neck; saline laxatives;* good nourishment; stimulants *may or may not be required.* After two weeks, carbonate *of ammonium, gr. v., in* liquor ammonii acetatis, ℥ ss.

four times a day. Some weeks later, galvanism of the paralyzed muscles; massage; passive motion; lactophosphate of lime and cod-liver oil; hypodermic injections of strychnia. Recurrence of the hemorrhage should be guarded against by well-regulated diet, etc., and avoidance of all exciting causes, and observance of hygienic measures.

HEMORRHAGE, INTESTINAL.

Synonym.—Melæna.

Etiology.—Obstructive disease of the heart and great vessels, of the lungs, of the liver; rupture of vessels due to ulceration; purpura, yellow fever, malignant jaundice, etc.; trauma; mechanical and chemical irritation; aneurism; piles; fissures, fistulæ, etc.; embolism of the mesenteric arteries.

Symptoms.—If the hemorrhage is considerable, the face becomes deadly pale, eyes glassy; roaring in the ears; pulse becomes weak and ceases at the wrist; faintness or syncope; convulsion; death may ensue before blood escapes externally; otherwise, a sudden, irresistible desire for an evacuation, and blood passes changed or unchanged. If the blood escapes in small quantities and slowly, the symptoms will be less marked. A sudden decline in temperature during the course of typhoid fever is a warning of hemorrhage from the bowels.

Treatment.—When acute, absolute rest in bed; mustard plasters and ice-bags to the abdomen; ergotin subcutaneously, alum whey to be drunk freely; tannic or gallic acid; acetate of lead and opium; oil of turpentine; ammonio-ferric alum; ice-water enemata; iron styptics per os or per enema, according to site. Ligation of the extremities. If secondary to some other disease, treat the primary affection. See also hemorrhage of the stomach.

Prescriptions.

℞ Olei terebinth. ..... ʒ ij.–iv.
Spts. lavand. co. ..... ℥ ss.
Tinct. opii ..... ♏xx.
Sach. alb.,
Pulv. acaciæ ..... āā ʒ ij.
Aquæ ..... ad ℥ vi.
M. S. Tablespoonful. Hemorrhage from typhoid fever.

℞ Acid. gallic ..... ʒ iss.
Syr. cinnamom. ..... ʒ iv.
M. S. Dessertspoonful every two, three or four hours.

℞ Liq. ferri pernitratis, vel
Liq. ferri subsulphatis ..... ʒ vi.
Tinct. opii ..... ʒ ij.
M. S. Fifteen drops every hour.

HEMORRHAGE, SPINAL.

Synonyms.—Hæmatorrhachis (if meningeal); hæmato-yelus (if into the substance of the cord).

Etiology.—Traumatism of the vertebræ; penetrating ounds; rupture of a vessel from various causes; hæmo-hilia; scurvy; purpura; variola; typhoid, etc.

Symptoms.—Meningeal hemorrhage: Paralysis, usually adden, patient falling; consciousness retained; pain, local nd in the extremities; tetanic stiffness of a segment of the ertebral column; abnormal cutaneous sensations; cramps; onic spasms from time to time; or tremors of the muscles f the extremities (corresponding with the seat of the ex-avasation); the bladder and rectum may be paralyzed; metimes embarassed respiration and difficulty of swal-wing or opisthotonos. The symptoms vary with the egree and seat of the hemorrhage. Movements aggravate e symptoms.

Hemorrhage into the cord: Sudden pain in the back; hock (may be attended with temporary loss of conscious-ess); sudden paralysis of motion and sensation without ss of consciousness; symptoms vary according to location nd extent of the hemorrhage; local anæsthesia; sometimes aralysis of respiratory muscles or of bladder and rectum; casionally priapism; electro-motor contractibility abol-hed.

Complications and Sequelæ.—Cystitis; bed-sores; tal apnœa; atrophy of paralyzed muscles.

Differential Diagnosis.—From hyperæmia; from inal meningitis; from myelitis; from acute spinal paralysis children.

Treatment.—Absolute quiet, avoiding dorsal decubi-s; morphia hypodermically for relief of pain and restless-ess; ergotin subcutaneously during the hemorrhage; eneral bleeding if patient be plethoric. To promote sorption, purgatives; infusion of digitalis; occasional ses of pilocarpine; carbonate of ammonia, gr. x., in liquor mmonii acetatis, ℥ ss., t. i. d. Subsequently, spinal galva-ization; hot *spinal douche;* the spinal pack for a few hours *a time.*

HYDROCEPHALUS, CONGENITAL.

Synonyms.—Dropsy of the brain; cerebral dropsy.

Definition.—Effusion of serous fluid into the cavities (chiefly the lateral ventricles) of the brain and beneath its investing membranes.

The term acute hydrocephalus is commonly used synonymously with tubercular meningitis, and will be considered under that head.

The term chronic hydrocephalus is used in a variety of senses. The affection spoken of here is very generally called chronic hydrocephalus.

Congenital hydrocephalus exists before birth or develops with great intensity soon after delivery. The accumulation of fluid may be so great before birth as to increase the size of the head to an extent which materially interferes with the processes of parturition.

Symptoms.—Diagnostic symptoms relate largely to the external appearance ot the head. In a well-marked case there is a striking contrast between the increased volume of the upper part of the head and the small dimensions of the face. The forehead is overhanging. The eyes are sunken; they may protrude so that the lids can be closed only with difficulty; the axes may or may not be changed; there is frequently internal squint; and frequently continuous motion of the eyeballs to and fro; the pupils are usually dilated. The fontanelles and sutures may be gaping and ununited. In some cases the skull is translucent. Inability to support the head in the erect position; inability to rotate it upon the pillow, perhaps. Sight and hearing may be perfect or impaired, or good at first and then gradually destroyed. Convulsions. Voracious appetite. Progressive emaciation of trunk and limbs, and feebleness; inability to walk, or with tottering gait; lack of intelligence; sometimes idiotic.

In some cases, the child appears healthy at birth, and after a time the head begins to enlarge, and the phenomena already mentioned will be developed more or less extensively.

In the mildest cases, the intelligence and mental faculties remain good; but occasionally the patient suffers from *disturbances of digestion*, accompanied with impairment of *nutrition*; sometimes with ill-defined cerebral symptoms

ipation and occasional vomiting, slight febrile move-
, rapid loss of flesh, irritability or drowsiness, fits of cry-
ithout apparent cause; finally, a change occurs. The
returns to a normal condition, except the size of the
This class of patients may live until the middle
l of life, sometimes later.

eatment.—For the hydrocephalic condition a variety
thods have been resorted to, but the results have been
antially negative.

HYDRONEPHROSIS.

nonym.—Dropsy of the kidney.

finition.—Dilatation of the pelvis and calyces of the
y by an accumulation of urine.

iology.—Congenital malformation; occlusion of the
r by a calculus, inflammatory adhesion, stricture, or
nal pressure; obstruction in other parts of the urinary
ges.

mptoms.—Usually but one kidney is affected, the
ions being discharged by the other, and there is, as a
no symptom until the formation of a fluctuating tu-
which, according to its size and the pressure exerted
ighboring structures, causes corresponding symptoms.
umor may suddenly disappear, followed by an abun-
flow of watery urine, if the obstruction gives way.

fferential Diagnosis.—From carcinoma; from hy-
s; from ovarian cysts; from pyonephrosis; from tu-
lar nephritis, etc.

eatment.—Careful manipulation may empty the tu-
by overcoming the obstruction; this failing, tapping or
ation may be resorted to if the symptoms call for inter-
ce; removal of the kidney.

HYDROPHOBIA.

nonym.—Rabies.

finition.—A disease special to the dog (may occur in
at, fox, wolf), and transmitted by inoculation only.
ost characteristic features in man are the terror and
ysmal spasms affecting especially deglutition and re-
on.

logy.—*The virus* contained in the saliva and cor

municated by the bite of a rabid animal. The poison may enter the system through the slightest scratch, or be absorbed by a mucous membrane.

Symptoms.—Incubation may vary indefinitely. In a large majority of cases, the disease is developed within two months. Ushered in by feelings of malaise, despondency (sometimes absent), dryness of mouth and thirst, restlessness, an undefined dread, giddiness, alternate chills and heat. Oppression of the chest, occasional sighing respiration, epigastric pain, due to spasms of the diaphragm. Later, spasmodic affection of the muscles of deglutition and respiration, generally revealed by a choking sensation when attempting to drink; extreme sensibility of the surface and the special senses; excessive mental terror and agitation; abundant secretion of tenacious mucus from the fauces and salivation, with constant expectoration. These symptoms become rapidly aggravated; general convulsions; often furious mania. Albuminuria may be present. The disease is usually fatal in from three to six days.

Differential Diagnosis.—From tetanus; from hysteria; from rabies without hydrophobia (rare).

Treatment.—Prevention should be tried by immediately ligating the limb above the wound, excising and cauterizing the injured part to the bottom by silver nitrate, the actual cautery, potassa fusa, nitric acid, etc. Even after two or three days the wound should be excised or cauterized, or both. Mental influence should be exercised. Otherwise treatment can accomplish little. Thus far the disease has almost without exception terminated fatally. Relief may be afforded by hypodermics of curare, morphia, and atropia; ice-bags to the spine; inhalations of chloroform; the cold bath or wet packs.

PRESCRIPTION.

℞ Curare. . . . . gr. i.
Aqua destill. . . . . ♏xij.
Administer hypodermically ¼, ½, ¾, or even more of a grain, according to symptoms, every half-hour or hour, or two hours, to the production of the physiological effects of the drug.

N. B.—Curare should never be handled with the fingers.

HYDROTHORAX.

Synonyms.—Dropsy of the chest; dropsy of the pleura.

Definition.—An accumulation of serous fluid in the chest, and unaccompanied (?) by inflammation of the pleura. The effusion may be into one or both pleural cavities; double if the pleural cavities were previously healthy.

Etiology.—Hydrothorax is a part of general dropsy in cardiac and renal disease; any disease which causes general hydræmia.

Symptoms.—Steadily increasing dyspnœa; signs of imperfect aëration of the blood; embarrassed action of the heart.

Physical Signs.—Those which indicate the presence of fluid in the pleural cavity (see Pleurisy).

Differential Diagnosis.—From pleurisy; from pneumo-hydrothorax; from pneumothorax; from pulmonary œdema.

Treatment.—That of general dropsy. Also dry cupping over the chest. If there be much distress, thoracentesis (see Pleurisy).

HYSTERIA.

Definition.—A functional nervous disorder; a general neurosis; characterized by various motor, sensory, and intellectual disturbances, and excessive variability in their manifestation.

Etiology.—Inherited diathesis; anæmia; overtasking of mind and body; mental anxiety; grief; prostration after various diseases; excessive venereal indulgence; masturbation; continence; fright; horror; powerful religious impressions; disappointed love; jealousy; uterine or ovarian disturbances; digestive disturbances, etc. Affects principally females; most frequent between the twelfth and twentieth years of life.

Symptoms.—May simulate almost any complaint. Undue emotional excitability, laughter, weeping, cries, etc.; defective will-power and intellect during attack; changes in cutaneous sensibility ("goose-flesh;" anæsthetic spots; hyperæsthetic patches, such as tender spots on the scalp; motor disturbances; involuntary muscular movements; strabismus may occur temporarily; constriction in the epi-

gastrium; "globus hystericus;" tinnitus aurium; eructations; tympanites; various neuralgias; a peculiar form of headache, described "as if a nail were being driven into the head" (clavus hystericus); functional paralysis; nervous aphonia; hysterical cough; hyperæsthesia of joints (usually knee and hip); hyperæsthesia of sight, hearing, and smell, also of the muscles to pressure; hysterical anæsthesia (sensory) frequently shows itself over one side of the body, especially the left; pain and tenderness over one or both ovaries; retention, diminution, or suppression of urine; moral obliquity.

Hysterical paroxysm or fit.—Generally preceded by sighing, sobbing, laughing, gesticulations, sense of choking, etc. Incomplete unconsciousness; spasmodic movements, varying from slight twitchings to almost tetanic spasms; no lividity of face nor arrested respiration; breathing noisy and irregular, often attended with gurgling sounds; pulse normal; rarely foaming at the mouth. Terminates with crying, laughing, sighing, or yawning, copious discharge of urine, and a feeling of exhaustion. Hysterical coma may precede or follow the attack. Insensibility is not complete; the patient usually presents the appearance of tranquil sleep, perhaps attended by convulsive twitchings of the eyelids or eyes; respiration quiet; pulse regular; some musular rigidity.

Hystero-epilepsy.—The paroxysms, though essentially hysteric, present some of the phenomena of epilepsy; sudden shriek; tonic and clonic convulsions; the tongue and cheek may be bitten; distorted features; face sometimes discolored; foamy saliva escapes from the mouth; an aura (often starting from the ovaries) may precede it; the termination resembles that of hysteria.

Malingering enters into a number of hysterical phenomena.

Differential Diagnosis.—From epilepsy; from uræmic coma; from meningitis; from hemiplegia.

Treatment.—During a paroxysm: Patient should be prevented from injuring herself (in many cases, it is well done by leaving the patient alone); cold douche to the *head; ammonia* to the nostrils; a moderate galvanic shock; *firm pressure* over the ovarian region. Internally, aromatic *spirits of* ammonia with valerian, or asafœtida may be *given; bromides.* To buxom girls, small doses of tartar

emetic. Improve the general condition. Remove associated disorders. Correct bad habits. Moral management.

For the hysterical condition: Mental and moral guidance; vicious habits must be abandoned; proper hygiene; change of scene. Valerian, asafœtida, lactucarium, ether, belladonna, hyoscyamus, valerianate of ammonia; potassium bromide; phosphide of zinc (granules of gr. $\frac{1}{5}$ to $\frac{3}{81}$ with food t. i. d.). Relief of symptoms; for pain in various parts, belladonna, or opium plasters, or liniments; for anæsthesia and paralyses, massage, galvanism, forced feeding, etc.

INFLUENZA.

Synonyms.—Epidemic catarrh; grippe; epidemic bronchitis.

Definition.—An epidemic disease, self-limited, characterized by a catarrh of the respiratory, and sometimes of the digestive organs, and by nervous symptoms and debility.

Etiology.—A poison, the nature of which is unknown, probably conveyed by the atmosphere.

Predisposing Causes: The female sex (slightly); adult and advanced age; a low condition of the system; exposure to cold; the existence of chronic lung and heart diseases (?); previous attacks (?).

Symptoms.—The period of incubation lasts from a few hours to six days (may extend to three weeks).

The onset is usually sudden. Chillniness or chill alternating with flushing and heat; lassitude; pain in the limbs; often headache or nausea and vomiting; fever, remittent in type, with evening exacerbations. Pulse increased in frequency, at first full and bounding; later, soft, weak, and slow. Prostration and debility, apathy, mental hebetude; pain in various regions; giddiness; restlessness. Urine febrile. In uncomplicated cases, the fever lasts from four to eight days, terminating gradually (by lysis), or by crisis with profuse perspiration and abundant secretion of urine rich in lithates, or with diarrhœa.

Locally catarrh, usually commencing in the nose and conjunctiva, and extending downwards. The parts are dry at first; soon a watery acrid discharge flows freely; sneezing; *occasionally epistaxis.* Mouth, tongue, and throat are sore; *taste impaired;* severe frontal headache. As the

catarrh extends to the larynx, corresponding symptoms are noted; hoarseness, dyspnœa, paroxysmal cough, first dry, later with bronchitis, sometimes bloody expectoration; epigastric pain, nausea and vomiting, diarrhœa. Tongue furred; thirst; loss of appetite. In severe, complicated cases, there is a tendency to the typhoid condition; dry, brown tongue; nervous symptoms—delirium, stupor, vertigo, convulsions.

The catarrhal symptoms usually subside from the fifth to the seventh day, and convalescence begins unless complications have arisen. Convalescence is often protracted, on account of remaining debility and nervous depression, neuralgia and rheumatic pains, or cough. Relapses are not uncommon.

Complications and Sequelæ.—Capillary bronchitis; pulmonary congestion and œdema; pneumonia; otitis; jaundice; inflammation of the mucous membrane of the alimentary canal and the genito-urinary apparatus; pleurisy; pericarditis; very rarely meningitis. Occasionally, chronic bronchitis, emphysema, chronic laryngitis, phthisis.

Differential Diagnosis.—From catarrhal affections of the nose, throat, and bronchial tubes.

Treatment.—Confinement in a cool, well-ventilated room free from draught. Depressing or debilitating measures are to be avoided. A calomel and saline purgative at the outset, not to be repeated; or a stimulating emetic if there be much nausea, or the air tubes are loaded with secretion. Diet liquid and nutritious (milk, beef-tea). Cool drinks freely (very dilute solution of nitrate of potassium with lemon-juice and sugar). When the first irritation is felt in the nares, irrigate the cavities with solution of muriate of quinia. Pilocarpine directly used or quinine in full doses may abort it within the first two days. Alcoholic stimulants for debility, to be used with caution. Quinine (gr. xv.) with morphia (gr. ss.), to which belladonna or atropia may be added. Muriate of ammonia freely.

For catarrhal symptoms, inhalations of steam, to which ether, chloroform, or conium may be added. For bronchial *catarrh*, vinum ipecac in full doses, or ipecac and morphia. *Poultices*, sinapisms, and fomentations over the chest. For *capillary* bronchitis or pneumonia, stimulants—ammonia *with* decoction of bark and chloric ether, alcoholics. Free

dry cupping. For irritable stomach, cerium oxalate, hydrocyanic acid; minute doses of morphia subcutaneously; carbolic acid with bismuth. For general pains, Dover's powder; potassium iodide with quinia; subcutaneous injections of morphia; colchicum. For fever, cold sponging. For dangerous nervous symptoms, cold to the head; or two to three leeches; potassium bromide; gelsemium; duboisia; morphia subcutaneously. During convalescence, tonics—quinia and iron, with nourishing food and wine or beer. Change of air. Guard against cold. Expectorants are often required; opium with balsams for excessive cough.

PRESCRIPTIONS.

℞ Ext. ipecac. fl. ..... ʒ ij.
Tinct. opii deodor. ..... ʒ iv.
Tinct. aconiti radicis ..... ʒ i.
M. S. Six to ten drops every two hours. For the bronchitis.

℞ Ammonii muriat ..... ʒ iss.
Morph. sulph. ..... gr. ij.
Tinct. sanguinariæ ..... ʒ iv.
Syr. ipecac. ..... ʒ iv.
Syr. glycyrrhiz ..... ℥ i.
Aquæ ..... ℥ ij.
M. et S. Teaspoonful doses, to allay cough.

INTESTINES, CANCER OF.

Synonym.—Carcinoma of the intestines.

The usual sites are the rectum, the sigmoid flexure of the colon, and the cæcum. The disease may occur in the small intestine. The varieties are simple carcinoma, colloid cancer, and epithelioma.

Etiology.—Obscure. Heredity and predisposition. Occurs most frequently in persons over thirty years of age.

Symptoms.—Localized pain (very uncertain), either dull and heavy or acute and lacinating; decline of health; loss of strength and emaciation; fatigue; dingy complexion—fawn color; salivation; a tumor may be felt on palpation. Habitual constipation; flatulence; irregular diarrhœa, abnormal shape and size of the fæces as they are passed. If the rectum is the site, there is tenesmus, constant desire to defecate, and agonizing pain. (Exploration will aid in the diagnosis.) The stools contain mucus, pus, blood, offensive gangrenous masses, and parts of the neoplasm. Stenosis gradually increases.

Complications.—Rupture of the intestine; extension of the neoplasm to the peritoneum; retention of urine; hydronephrosis.

Differential Diagnosis.—From catarrh and ulcer of the intestines; from floating kidney; from aneurism; from fecal accumulations; from other growths.

Treatment.—Is palliative merely. The food must be easily digestible, and should leave little residue. The bowels should be kept soluble. Anodynes to relieve pain. A surgical operation in cases of cancer of the rectum may give relief and prolong life.

INTESTINE, OBSTRUCTION OF.

Synonyms.—Occlusion of the intestine; ileus; iliac passion; volvulus; miserere; intussusception; twisting or torsion of the intestine, etc. (volvulus, ileus, rolling or twisting are frequently used synonymously).

Definition.—An arrest, complete or incomplete, of the passage of the contents of the intestines, by obstacles within the bowel, or in its walls, or within the cavity of the peritoneum.

Etiology.—1. Extrinsic Causes: Tumors (floating kidney, displaced spleen, mesenteric and ovarian tumors, cancer, etc.); entanglement in peritoneal openings (hernia, etc.); constricting bands of connective tissue; incarceration in apertures in the omentum, mesentery, diaphragm, suspensory ligament of the liver, broad ligament of the uterus, etc.

2. Conditions affecting the walls of the intestine: Tumors (polypi, hydatid cysts, carcinoma, etc.); contraction of cicatrices (from ulcers due to dysentery, typhoid fever, syphilis, etc.); intussusception (under ten years in a large proportion of cases); congenital constrictions, spasm and paralysis of the muscular coat; twisting or torsion.

3. Disorders within the canal: Fecal accumulations; calculi; foreign bodies; habitual constipation; abnormal flexures of the colon; masses of worms.

Symptoms.—The symptoms common to obstruction, complete or nearly complete, produced by the above causes are, abdominal pain (not invariably present, colicky, aggravated by pressure); constipation; vomiting (ingesta, bile, *stercoraceous* material; tendency most marked when the *obstruction* is in the upper part of the intestine, often absent *when the* obstruction is in the colon or rectum, fecal only *when the* obstruction is moderately low down; early and per-

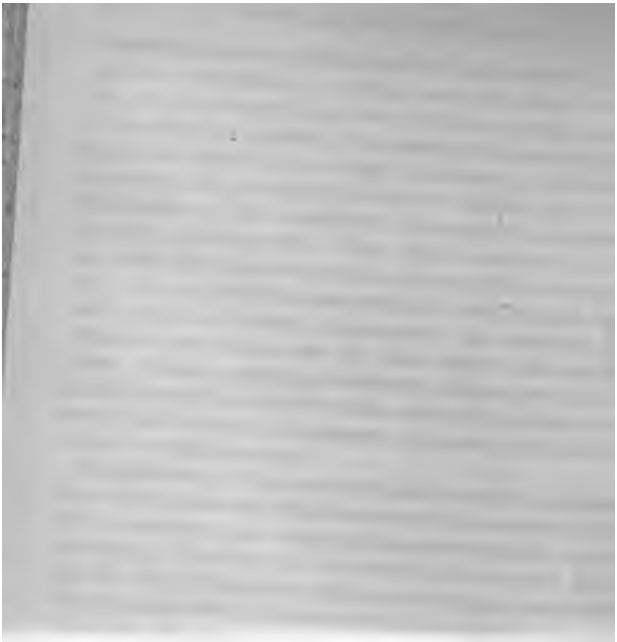
mucous membrane of the bile-ducts and duodenum; foreign bodies in the biliary passages, such as calculi, thickened bile, mucus, thrombosis of the portal vein, parasites; stenosis of the bile-ducts, partial or complete; new-growths pressing upon the bile-ducts, such as neoplasms, aneurisms, fecal impaction, etc.; new-growths in the walls of the bile-ducts; diminution of the respiratory movements (diaphragmatic pleurisy, perihepatitis). The non-obstructive (bile-ducts perfectly pervious, not inflamed or otherwise changed) occurs with yellow fever; less frequently with typhoid, typhus, and relapsing fevers; occasionally in remittent fever, measles, pneumonia, also in acute yellow atrophy of the liver; mineral poisons (phosphorus, copper, mercury, antimony); inhalation of chloroform and ether (seldom); in concussion of the brain; in pyæmia; poisoning by snakes; with violent mental emotions.

Symptoms.—The most common cause of obstructive jaundice is catarrhal inflammation of the common bile-duct with or without duodenitis or gastro-duodenitis (catarrhal jaundice). The jaundice is preceded for several days by malaise, loss of appetite, nausea and vomiting (most marked when the stomach is involved; usually no gastric disturbance when the bile-duct alone is involved); tenderness over the epigastrium (usually accompanied by pain); febrile movement (intensity dependent upon the amount of gastro-duodenitis); perhaps headache and vertigo; constipation, fæces clay-colored; urine more deeply colored than normal (contains bile-pigment). Soon the jaundice appears; yellow vision may exist (xanthopsia). In some cases the jaundice appears first, and is followed by constitutional symptoms. Itching of the skin is a notable symptom after the jaundice is developed.

Treatment.—Treat the lesion which causes the jaundice. (See Bile-ducts, catarrh of; gall-stones, duodenitis, etc.)

KIDNEY, BRIGHT'S DISEASES OF.

Definition.—A group of diseases of the kidneys characterized by changes in the urine and dropsy. The changes in the urine pertain chiefly to its specific gravity and quantity, and the presence of albumen and casts.



ACUTE PARENCHYMATOUS NEPHRITIS.

Synonyms.—Acute Bright's disease; acute albuminuria; acute desquamative nephritis; acute tubal nephritis; acute diffuse nephritis; catarrhal nephritis; croupous nephritis; acute renal dropsy; acute interstitial nephritis.

One writer describes acute parenchymatous nephritis and acute diffuse nephritis as distinct diseases, the lesions of the latter being those of the former (usually more marked), and, in addition, certain changes affecting the Malpighian bodies and the stroma of the kidney.

Etiology.—Occurs idiopathically (less common than as a secondary disease). Occurs with scarlet fever (usually after convalescence), diphtheria, peritonitis, poisoning by phosphorus and arsenic, measles, cholera, yellow fever, acute yellow atrophy of the liver (idiopathic parenchymatous hepatitis); pyæmia, septicæmia, carbuncles, pneumonia, typhoid and typhus fevers, rheumatism, diabetes mellitus, relapsing fever, dysentery, extensive burns, and pregnancy; from exposure to cold, especially in the intemperate; irritant drugs (prolonged use or overdose), such as copaiba, turpentine, cantharides, chlorate of potassium, etc.; occupations which subject to sudden and repeated changes of temperature (perhaps the most common cause).

Symptoms.—Occurs most frequently between the ages of one and forty years. Those pertaining to the urine and dropsy possess the greatest diagnostic importance. The urine is diminished in quantity (complete suppression may occur); the specific gravity will vary from 1.010 to 1.020 or 1.030; albumen is present (usually in large quantity); it contains casts—hyaline (small most abundant), granular, epithelial, nucleated, and usually (not always) abundant in numbers; blood casts may exist—the color of the urine may be changed (dark, smoky, reddish, or brownish, due to the presence of blood, etc.). The urine may also contain red blood-globules and renal epithelium. Later, the quantity of urine is usually increased, the specific gravity is usually below normal, the quantity of albumen is diminished, the color is normal, or nearly so, and then fatty casts are found with renal epithelium, free fat granules or globules, and sometimes pus-cells.

Œdema of the face and lower extremities is usually an *early and marked symptom* (not so prominent in secondar

as in idiopathic cases, except after scarlet fever). There are gastric and cerebral symptoms (loss of appetite, nausea, vomiting, headache, stupor, delirium, etc.).

The majority of patients recover from this form of Bright's disease; the evidences in the urine may continue for a long time, and then finally disappear permanently; some cases pass on into the chronic form of the disease.

Complications.—Endocarditis, pericarditis, pleurisy, pneumonia, peritonitis, œdema glottidis, impaired vision and amaurosis, pulmonary œdema, bronchitis, meningitis.

Treatment.—When the invasion is acute and well-marked, with dropsy and cerebral symptoms, active measures, such as cupping the loins (wet, if the case is idiopathic and patient robust), followed by poultices; diuretics (digitalis infusion, ℥ss. every two hours with or without acetate, carbonate, or citrate of potassium, gr. xv. to xx.); diaphoretics—hot-air bath, jaborandi (care must be exercised in its use if the patient is semi or completely unconscious)—cathartics (pulvis purgans, elaterium, calomel, podophyllin); hypodermic injections of morphine, chloroform, chloral hydrate, to control muscular spasms if present. After a few days (active measures must not be prolonged), tonics, especially some preparation of iron Milk diet. In the milder cases, nothing more may be required than rest in bed, milk diet, a gentle diaphoresis, a rather more than ordinary soluble condition of the bowels, perhaps a diuretic, and soon some preparation of iron. All these patients should be confined to the house or a warm climate until the urine contains neither albumen nor casts, and subsequently, for some time, they should live in a warm climate.

Chronic Parenchymatous Nephritis.

Synonyms.—Large white kidney; chronic catarrhal nephritis.

Etiology.—The acute and the chronic form are treated by some authors under one heading. The existence of chronic parenchymatous nephritis is almost doubted by some observers. Those who regard it as a disease entitled to special consideration, say that it may occur without known cause, or that it may follow acute parenchymatous nephritis, or that it may exist as a subacute or chronic affection following causes which give rise to the acute affec-

tion. By some, the term is made to embrace all cases in which inflammation of the uriniferous tubes persists for many weeks, and to include cases in which recovery takes place even after months or years.

Symptoms.—Occurs chiefly in adult subjects (30 to 50). In every case albumen (usually abundant) exists in the urine; the specific gravity usually from 1.020 to 1.025 (may vary from 1.005 to 1.035); the quantity may be either diminished or increased (usually below the normal); casts are present as a rule (large hyaline, nucleated, granular, epithelial). Dropsy is usually present, and is generally a prominent symptom. Anæmia is marked. There are cerebral and gastric symptoms, also cardiac hypertrophy (not so constantly as in chronic diffuse nephritis). A small proportion of cases, not preceded by the acute affection, go on to recovery. This number will be small if the acute disease, terminating in recovery at the end of several months, is not regarded as chronic. The course of this disease is fluctuating; the patient sometimes being apparently quite well, apparently relapsing again, recovering, and remaining so for a long time; at other times, there is steady progress to a fatal termination.

Treatment.—The general dropsy usually demands especial attention, and may be managed much as in the acute parenchymatous nephritis, except that the very active interference should be avoided. Keep the patient in bed, and endeavor to increase the action of the skin, kidneys, and bowels alternately. Sustain the general nutrition. Administer iron (tincture of the chloride). Send the patient to a warm climate. If the dropsy does not readily yield to treatment, cease all active measures for two or three weeks, and then renew them, in the mean time giving the patient tonics and a nutritious diet. Relieve the vomiting, diarrhœa, impaired appetite, disordered digestion, headache, dyspnœa, insomnia, etc., according to the varying circumstances in different cases, and at different periods in the same case.

Chronic Diffuse Nephritis.

Synonyms.—Chronic interstitial nephritis; chronic Bright's disease; chronic croupous nephritis; chronic catarrhal *nephritis; chronic* tubular nephritis; atrophied kidney; *granular kidney; cirrhotic* kidney; large white kidney;

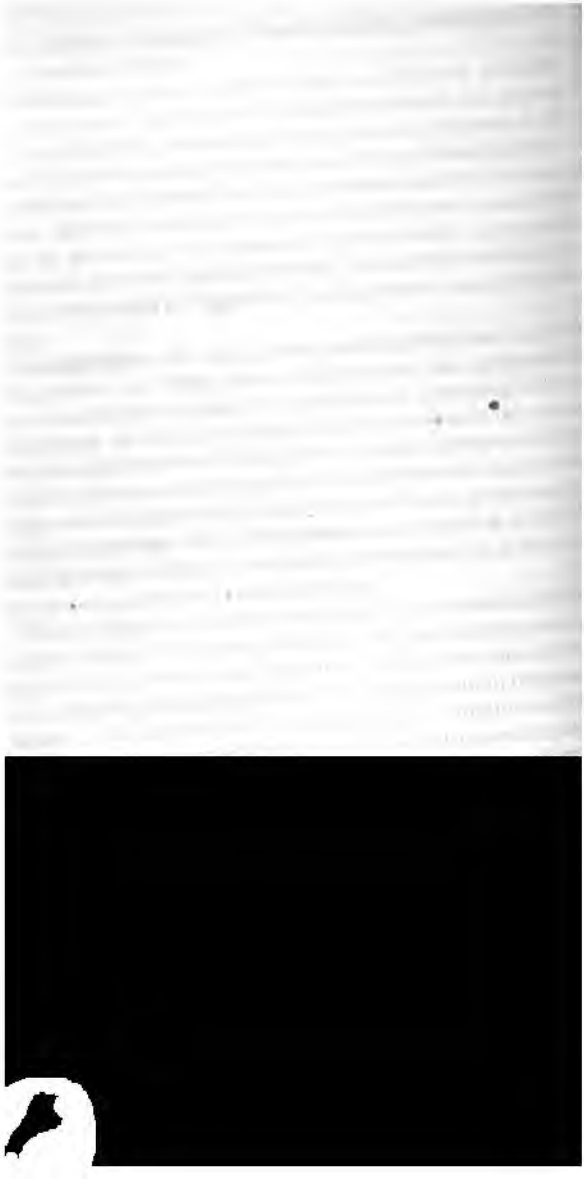
gouty kidney; fibrous or fibroid kidney; contracting kidney; renal cirrhosis.

Etiology.—Gout; rheumatism; steady and prolonged use of alcoholic drinks; with cirrhosis of the liver, pulmonary emphysema; fibroid phthisis; organic disease of the heart; syphilis; acute parenchymatous or diffuse nephritis; occurs in certain families; rarely before middle life (maximum liability between forty-five and fifty-five); more common in males than in females; occurs chiefly in temperate climates; chronic lead-poisoning; long-continued circulation in the blood of imperfectly-oxygenized matters (lithæmia).

Symptoms.—In some cases, well-marked and steadily progressive; in other cases, well-marked, but intermittent to a considerable extent; in other cases, obscure, lurking, ill-defined; in still other cases, the first evidence of the disease is manifested with an attack of some disease or the reception of some injury; or by an explosion in convulsion, coma, severe cephalalgia, pulmonary œdema, dyspnœa, persistent vomiting, etc. The disease may exist in a far advanced stage without producing symptoms, the first evidence being obtained at the autopsy.

The changes in the urine are quite constant when the disease is fairly developed. The quantity is variable (may be suppressed; oftener exceeds than falls below the normal); the specific gravity regularly lower than normal, frequently below 1.010, may be 1.003 (exceptionally normal); inodorous; frothing when poured from one vessel into another; albumen (quantity variable, sometimes exceedingly small or absent); color paler than normal; casts—hyaline (usually large), granular, fatty, and epithelial (sometimes), nucleated; several examinations may be necessary before they are found. (Albumen may be temporarily in the urine in apparent health.)

Dropsy is an important symptom; in some cases, it is present throughout the course of the disease, although at times it can be detected only where pressure can be made against a resisting surface, as over the sternum, over the tibia, etc.; subconjunctival œdema; in the cases in which the symptoms are not continuous, the dropsy intermits; *with the large* kidney (chronic), the dropsy is usually developed *early*, and it may be the first symptom (general anasarca *not* infrequent), or it may not appear until several



hs after the development of other symptoms, such as
:psia, headache, loss of flesh and strength, etc.; with
:rophied kidney the dropsy is variable: it may be well-
ed, or only slight, or absent for considerable periods
ıe (general anasarca is not common with this form).
lor of the skin and mucous membranes; gray and dry
dry skin; permanent pulsating tortuous temporal
es; increased arterial tension (valuable); œdema of the
may be present in health); headache; dyspnœa (com-
and characteristic; may be due to pulmonary œdema
drothorax, or it may occur without lesions of the
; believed by many to be due to disturbed nerve-
ion); neuralgic pains; cramps; impaired vision (may be
st symptom noticed); vertigo; disturbances of memory
ther mental conditions; nausea and vomiting (may be
persistent); cardiac hypertrophy without valvular
s (very valuable); in some cases, the chief symptoms
long time will be gastric, with anæmia and loss of
ınd strength; in some cases, headache and insomnia
ıe only symptoms present, and they may be very per-
t; the bowels not infrequently become loose, especially
much dropsy exists; coma and convulsions.

mplications.—During the course of chronic nephri-
ıe patient is especially liable to emphysema of the
, pneumonia, bronchitis, gastritis, meningitis, apo-
, pericarditis, peritonitis, pleurisy, and amaurosis.
ɔsis of the liver and pulmonary phthisis are frequently
ated with it; also hemorrhages from mucous and
ı surfaces. Œdema of the glottis and pulmonary œde-
nd they may occur without general dropsy, or having
preceded by any of the milder symptoms of the kid-
ffection. An acute attack may be engrafted upon the
ic disease.

eatment.—A warm, equable climate. Palliation of
toms. Aid the elimination of urea by increasing the
ive power of the kidneys. (When the quantity of
is diminished, digitalis is as serviceable a remedy as
e used.) If the quantity of urine is excessive, it may
ıtrolled somewhat by the use of iron. Iron; bichlo-
of mercury (small doses long continued). The gastric
bances are to be treated as is dyspepsia under other cir-
ances. For the dyspnœa, due to pulmonary œdema,
ns over the chest; of nervous origin, hypodermic in

jection of morphine, one-twelfth to one-sixth of a grain. Quebracho may be tried for the asthmatic attacks. The cerebral symptoms may be treated by a combination of two methods—the eliminative (diuretics, cathartics, diaphoretics) and the hypodermic use of morphine, or by either alone; a judicious combination is probably the most advantageous. Sustain nutrition. With diminished secretion of urine and consequent dropsy (sometimes slight, at other times marked), vertigo, gastric disturbance, etc., large quantities of water taken daily by the patient have been followed by good results; the same is true of milk. A milk diet throughout is beneficial. Care should be exercised concerning the use of stimulants. Regulate the habits of life, exercise, etc. Keep the skin active. "Avoid measures which conflict with tolerance when they are not needed."

AMYLOID KIDNEY.

Synonyms.—Waxy kidney; lardaceous kidney.

Etiology. — Protracted and profuse suppuration; phthisis; chronic suppurative bone disease (caries of the ankle-joint seems to be an exception); ulcers; syphilis; scrofula; cancer.

This form of kidney disease has been regarded as belonging essentially to chronic diffuse nephritis.

Symptoms.—Onset usually masked by the co-existing disease. Anæmic and a cachectic aspect (is it due to the kidney lesion or the associated affection?). Cardiac hypertrophy is absent. The symptoms are liable to be obscured by the supervention of parenchymatous nephritis. Waxy liver, intestines, and spleen. Most frequent between twenty and thirty years. The urine is increased in quantity (quantity may be as large as one hundred ounces). Specific gravity low (usually very low, 1.005 perhaps), and it contains albumen (usually not large in quantity, sometimes only a trace) and casts (large hyaline or fine granular, or both). Dropsy is not a very marked symptom. These patients do not have general anasarca. The nervous symptoms are not prominent. If epithelial or fatty casts are in the urine, or if general anasarca occurs, or if coma and convulsions occur, it is evidence that the uriniferous tubules have become involved. Rapid loss of flesh and strength, and disturbances of the stomach and bowels are usually

prominent symptoms. Profuse uncontrollable diarrhœa is frequently present.

Treatment.—Remove the cause if possible. If it depends upon syphilis, anti-syphilitic remedies (mercury, iodide of potassium, with or without cod-liver oil, and tonics), Blancard's pills, one three times a day with food; if inflammatory symptoms develop, they must be treated according to principles already given (see Acute parenchymatous and Chronic diffuse nephritis).

GLOMERULO-NEPHRITIS.

Cases of this form of kidney disease have been reported. They have run a short course; in from two to six months some of them. General œdema has been a prominent symptom. The urine has been small in quantity, of a low specific gravity, and has contained a large amount of albumen. Cardiac hypertrophy existed.

TEMPORARY ALBUMINURIA.

It is a well-established clinical fact that albumen in abundance may exist temporarily in the urine of persons who are *apparently healthy*, except a transient lithuria or oxaluria, due to indiscretions in diet, excesses of various kinds, etc. This form of transient albuminuria is frequently met with in children and adolescents. Albumen in the urine, however, should never be regarded as a symptom of no importance, but should lead immediately to the careful study of the complete history of the case.

KIDNEY, CARCINOMA OF THE.

Synonym.—Cancer of the kidney.

Etiology.—Is unknown. Heredity (?). It may be primary or secondary; occurs most frequently in early life (children under ten years of age) and old age.

Symptoms.—Pain (may be absent) or a sensation of soreness in the lumbar region; hæmaturia (may be absent) irregular in appearance and intensity, unattended with pain unless the blood is clotted; formation of a tumor in the region of the kidney which grows forward and upward; *progressive emaciation*; debility; cachexia; appearance of *cancerous growths in* other situations.

Differential Diagnosis.—From hydronephrosis; from pyonephrosis; from renal abscess; from hydatids; from cystic degeneration; from retroperitoneal sarcoma; from cancer of the bladder.

Treatment.—Palliative and symptomatic.

KIDNEY, ECHINOCOCCUS OF THE.

Synonym.—Hydatid cyst of the kidney.

Etiology.—See hydatids of the liver. Tænia echinococcus.

Symptoms.—Usually only one kidney is affected. As a rule, symptoms are not developed until the cyst reaches a certain size, presenting a smooth elastic tumor in the flank. Fluctuation may be distinct, feeble, or absent; the purring tremor, the diagnostic symptom, is rarely encountered. (Puncture with aspiration and examination of the fluid microscopically.) If the sac ruptures into the pelvis of the kidney, there is a sharp pain; symptoms of renal colic; vesical tenesmus, etc., due to the passage of the vesicles. Hydronephrosis may occur from blocking of the ureter. Cysts or hooks in the urine. If the cyst bursts in other directions, there will be corresponding symptoms. The sac may refill repeatedly.

Differential Diagnosis.—From hydronephrosis; from pyonephrosis; from cancer.

Treatment.—The pain, etc., due to the passage of the vesicles, must be treated as renal colic. The parasite may be destroyed by simple aspiration; or injection of bile or of tincture of iodine; or by electrolysis. Extirpation of the affected kidney.

KIDNEY, MOVABLE.

Synonyms.—Floating kidney; misplaced kidney; wandering kidney; ectopia renis.

Etiology.—Repeated or difficult parturition; tight lacing; violence; increased weight of the organ from disease; traction of herniæ. It may be congenital; more frequently acquired.

Symptoms.—(May be absent.) Sense of weight and dragging pain, especially on walking and standing. Some

times it is attended by chilliness, nausea and vomiting; prostration; anxiety; tenderness on pressure; neuralgic pains and disturbances of the alimentary canal. The displaced organ may be felt on palpation; yields a dull note on percussion; its normal location gives a hollow tympanitic sound, and if it has not become adherent it may be moved about in all directions. It may descend into the lower part of the abdominal cavity, but usually it is found between the umbilicus and the false ribs. The right kidney, it is said, is most frequently involved.

Differential Diagnosis.—From other abdominal tumors; from distended gall-bladder; from fæcal accumulation; from mobile spleen; from the liver.

Treatment.—Replacement of the organ with the patient in the recumbent position; the kidney to be retained in place by a suitable bandage. An operation has been successfully performed to secure fixation. Relief of symptoms. Proper attention to the state of the bowels and urine, and to general hygiene.

KIDNEY, NEPHRITIS, TUBERCULAR.

Definition.—An inflammatory affection which results in the production of tuberculous tissue, pus, and new connective tissue which have a tendency to rapidly undergo cheesy degeneration. It usually involves only one kidney.

Symptoms.—Obscure at the beginning. There may be pain or discomfort in the lumbar region. Loss of flesh and strength and general health. After a time the urine contains blood, pus, and amorphous granular matter. A similar condition may develop in the testicle, prostate, or seminal vesicles, and aid in diagnosis. Later, a tumor may be felt in the abdominal cavity; aspiration for pus. Finally symptoms of chronic diffuse nephritis, albumen and casts in addition to blood and pus.

Differential Diagnosis.—From hydronephrosis, pyonephrosis, echinococcus, etc.

Treatment.—Extirpation. If the diagnosis can be made out early, removal of the affected kidney offers a fair chance to save the life of the patient.

KIDNEY—SUPPURATIVE INFLAMMATION.

1. Suppurative Nephritis.

Synonyms.—Acute interstitial nephritis; circumscribed nephritis; pyelonephritis; surgical kidney.

Etiology.—Cystitis; injury; irritation by a calculus; extension of inflammation from the bladder (vesical calculus), urinary passages, or neighboring structures; stricture of the urethra; enlarged prostate; operations upon the urethra and bladder; embolism; pyæmia. Both kidneys are usually involved; one only may be implicated. It occurs in old men who are accustomed to use the catheter on account of enlarged prostate.

Symptoms.—Pain in lumbar region, radiating toward the bladder, testis, or thigh; retraction of testicle; urine diminished or suppressed, containing blood, pus, and mucus; rigor and chills, followed by fever tending to a typhoid type and profuse sweating; rapid feeble pulse; vomiting; anxious face; uræmic symptoms; if due to pyæmia, the symptoms are often masked.

Treatment.—Futile so far as the disease is concerned. Prophylactic; treat cystitis, to keep the bladder in as nearly the normal condition as possible.

2. Pyelitis.

Definition.—Inflammation of the pelvis of the kidney; pyonephrosis includes pyelitis and means distention of the pelvis of the kidney with pus. They are frequently associated with each other.

Etiology.—Irritation by calculi, gravel, parasites, or blood-clots; morbid deposits (cancer, tubercle); extension of inflammation from the bladder; irritation from accumulated urine (obstruction of ureter); exposure to cold or wet (very rare); irritant drugs (copaiba, turpentine, cantharides); pyæmia; exanthematous fevers; puerperal fever; diphtheria; acute Bright's disease.

Symptoms.—Uneasiness or pain in one or both lumbar regions, shooting downward; tenderness; frequent micturition; rigors. Urine acid, increased specific gravity at first

[redacted]

if the ureter becomes obstructed and gives rise to pyonephrosis. With pyonephrosis, progressive emaciation and polyuria followed by anuria; rigors; fever, often of a hectic or typhoid type; diarrhœa or constipation. Death may ensue from gradual exhaustion, perforation, or rupture, symptoms differing according to the direction in which the rupture occurs. If there is no tumor, diagnosis is difficult, and may be impossible. Must be diagnosticated from hydronephrosis (also accompanied by progressive emaciation, polyuria, and anuria).

3. Perinephritis.

Synonyms.—Perinephritic abscess; renal abscess.

Definition.—Abscess in the connective tissue surrounding the kidney.

Etiology.—Injury; exposure to cold (?); previous suppurative nephritis or pyelitis; extension of pelvic cellulitis; operations on the rectum; inflammatory affections about the bladder; psoas abscess; typhlitis and perityphlitis. Its existence in children has been denied, but several well-authenticated cases have been recorded.

Symptoms.—Local pain, shooting downward; chilliness, followed by fever (103–104° F., with morning remissions); malaise; nausea; anorexia; coated tongue; rigors and profuse sweats; emaciation; obstinate constipation. Deep-seated fluctuation may be detected. The pus finally usually points in the lumbar region, but may rupture into the bowel.

Differential Diagnosis.—From hydronephrosis; from echinococcus; from cancer; from pyelitis with pyonephrosis. Diagnosis difficult, especially in young children, and perhaps impossible in the absence of tumor.

Treatment.—Rest in bed; dry cupping over the loins, or local abstraction of blood to the extent of from six to twelve ounces if the symptoms are acute; abundant diluent drinks. The abscess should be encouraged toward the surface by constant hot poultices or fomentations over the lumbar region, and evacuated by aspiration or incision; drainage. Abundant support; stimulants; quinia (gr. v.–x. every four hours), etc. Opium (subcutaneously) for the relief of pain.

LARYNGISMUS STRIDULUS.

Synonyms.—Spasm of the larynx; spasm of the glottis; suffocative laryngismus; spasmodic croup; cerebral croup; pseudo-croup; catarrhal croup.

Definition.—A condition (neurosis) in which there is a temporary, complete or incomplete, spasmodic closure of the glottis or vestibule of the larynx.

Etiology.—Cerebral disorders (epileptic paroxysms); direct or reflex peripheral nervous irritation from pressure on the recurrent laryngeal nerve, the presence of irritating substances in the alimentary canal, irritation of gums due to detention, etc.; occurs with hysteria. Young children are chiefly affected ("holding the breath" is a mild form); abnormally pendent epiglottis. In connection with paralysis of laryngeal muscles (adults); ulcerative laryngitis of phthisis; aneurism.

Symptoms.—There is usually a prodromal nasal catarrh. The actual attack commences suddenly (at night usually), with great dyspnœa or temporary suspension of respiration; sudden inspiratory stridor; stridulous "croupy" cough; face pallid, later livid; spasmodic contraction of the hands and feet ("carpo-pedal spasm"); the muscles of the face may be affected or general convulsions may occur. The attacks may recur on several successive nights.

Differential Diagnosis.—From true croup; from simple acute laryngitis; from œdema of the larynx (glottis).

Treatment.—During the attack, dashing cold water in the face; slapping the breast, back, buttock; place the forefinger deeply into the throat, and release the epiglottis if it is impacted; catheterization of the larynx; hold the child on its stomach; a hot foot-bath; fomentations to the neck; fluid extract of ipecac, a few drops every twenty minutes to nausea, or compound syrup of squills, gtt. xv.–xx. every fifteen minutes till vomiting occurs, or turpeth mineral, gr. ss.—ij., or alum, ʒ i.; potassium bromide, gr. v.–xx.; paregoric, ♏ x.–ʒ i. After the attack, daily cold bath in the morning; syrup of iodide of iron; lactophosphate of lime; vegetable tonics; cod-liver oil; the bromides. The cause of the attacks should be ascertained and removed. In adults, when associated with phthisis or paralysis of the laryngeal muscles, tracheotomy may be necessary.

PRESCRIPTION.

℞ Vin. antimon..... ʒ ij.
Syr. papaveris..... ʒ iv.
Syr. Tolu..... ʒ ij.
Aquæ..... ..... ℥ i.
M. S. As large doses as possible without producing vomiting, and repeated every hour.

LARYNGITIS, ACUTE.

ms.—Acute catarrhal laryngitis; acute catarrh nx; cynanche laryngea; angina laryngea; angina a; inflammation of the larynx; laryngite mu-

ion.—Inflammation of the larynx, involving the embrane, sometimes the submucous connective , perhaps, the muscles.

gy.—Inspiration of irritant fumes or contami- flame, hot vapor, etc.; over-exertion of the voice; unaccustomed exposure to cold; extension of in- n by contiguity; influenza; climatic influences; n; in connection with certain diseases, as small- es, diphtheria, typhoid and typhus fevers, erysip- ia, tonsillitis, rheumatism; with the use of cer- , as calomel, antimony, iodine.

oms.—Local tickling, soreness, or pain; hoarse- of constriction in the larynx; aphonia; stridu- , especially in children; labored respiration; im- iration (may be attended with stridor); dyspnœa quent in adults as in children); dryness and con- f the throat, difficulty of swallowing; flushed osis; in severe cases death may result from case of moderate severity is usually ushered in ness and fever. Hyperæmia and tumefaction of

ntial Diagnosis.—From laryngismus stridu- ical and otherwise); from true croup; from diph- m chronic laryngitis; from œdema of the larynx; modic asthma; from thoracic aneurism; from f the laryngeal muscles.

nent.—*Rest to the* larynx; confinement in-doors; *ist, uniform* temperature (70° F.); air charged *vapor; inhalation* of the vapor of warm water

or astringent sprays (alum or sulphate of zinc, gr. ij.–v.: ℥ i.) If seen early, Dover's powder, gr. x. Tincture of aconite root, gtt. ss.–i., for a child; gtt. i.–ij. for an adult, every two hours. Quinine in large doses. Large doses of potassium bromide and belladonna vapors for tendency to spasm of the glottis. For cough or local pain, deodorized tincture of opium, gtt. ij.–v. (may be added to the solution used for spraying), with fluid extract of ipecac, gtt. i.–ij.; hot compresses or poultices to the throat; cold compresses or an ice bag; infusion of marsh-mallow; warm sugar and water, hot milk and Selters water, equal parts, etc.; muriate of ammonia. The use of tobacco to be interdicted. If œdema supervenes, emetics; jaborandi or scarification; tracheotomy, if dyspnœa becomes urgent. Recurrence of attacks should be prevented by guarding against cold, wearing flannel, cold sponge baths in the morning; gr. x. of quinia daily, etc. An impending attack may be aborted by a full dose of quinine, gr. xv.–xx., with morphia, gr. $\frac{1}{4}$–$\frac{1}{2}$.

LARYNGITIS, CHRONIC.

Synonyms.—Chronic catarrh of the larynx; chronic laryngeal congestion; laryngeal phthisis; throat consumption.

Definition.—Inflammation of the larynx, involving all the tissues; it may be confined to the mucous membrane.

Etiology.—Preceding acute catarrhal attacks; chronic nasal catarrh; excessive use of the voice; phthisis (occurs frequently with this disease); syphilis; carcinoma; lupus; typhoid fever; bronchitis; tracheitis; pharyngitis; tonsillitis; local or contiguous irritation; external pressure; phlebectasia (?); irritation of the recurrent nerve; habitual inhalation of irritants; abuse of tobacco and alcohol; idiosyncrasy. Adults suffer from it more frequently than children; men than women, and in the middle period of life.

Symptoms.—Unpleasant sensations in the larynx; hawking; repeated desire to clear the throat and swallow frequently; alteration of voice; hoarseness or aphonia; cough with scanty expectoration, or muco-purulent, or streaked with blood and fetid; occasionally difficulty of swallowing; tongue red and thick, with prominent papillæ, and covered with creamy fur. In severe or protracted un-

complicated cases, the voice may be deep and rough or abnormally high. Erosions are of rare occurrence, and true ulcerations are exceedingly infrequent. Slight swelling and injection of the mucous membrane, or marked deep uniform redness, with tumefaction of the parts, and motor derangements affecting the cartilages and vocal cords.

Differential Diagnosis.—From laryngeal growths; from neuroses of the larynx; from laryngeal phthisis.

Treatment.—Attention to general health and hygiene; change of climate; avoidance of exposure to sudden changes of temperature. Medicated sprays. The remedies may also be introduced by insufflation or by means of the sponge. Counter-irritation over the neck by croton oil or small blisters. Abscesses must be opened. Tracheotomy for urgent dyspnœa; has been urged as a palliative measure in phthisis. The syphilitic form requires anti-syphilitic remedies: the form associated with phthisis, the general management of that disease.

PRESCRIPTIONS.

℞ Olei eucalypt....gtt. xlv.-lxxx.
Alcoholis.....fl. ʒ iij.
Aquæ destillat.....fl. ℥ vss.
To be inhaled from a spray apparatus four times daily, for ten to fifteen minutes at a time.

℞ Aluminis.. ..... ʒ ss.
Pulv. acaciæ,
Sacch. alb... .....āā ʒ ij.
M. Astringent for insufflation.

℞ Argenti nitrat.....gr. v.-xx.
Bismuth. subnitrat..... ... ʒ i.
M. Astringent for insufflation.

℞ Hydrastin..... ʒ ss.
Pulv. camph.....gr. x.
Bismuth. subnitrat..... ʒ iss.
Sacch. alba.....ad ʒ i.
M. Astringent for insufflation.

℞ Iodoformi..... .. ʒ i.-ʒ iv.
Pulv. camphoræ.....gr. xx.
Pulv. acaciæ..... ....ad ʒ i.
M. Stimulating and sedative for insufflation.

℞ Tinct. benzoini co..... ʒ iv.
Chloroformi..... ʒ ss.
M. S. Teaspoonful in a pint of water (140° F.) for each inhalation. Sedative.

℞ Olei cubebæ..... ... ʒ iss.
Olei limonis..... ʒ ss.
Magnesiæ carb. levis..... ʒ i.
Aquæ..... ..... ℥ iij.
M. S. A teaspoonful in a pint of water (140° F.) for each inhalation. Sedative.

Tuberculous laryngitis is an ulcerative laryngitis accompanying pulmonary phthisis Tuberculous disease confined to the larynx is of doubtful occurrence. Patients with phthisis are liable to intercurrent attacks of ordinary *catarrhal laryngitis.* In some cases there is a marked tendency *to a suppurative* chondritis or perichondritis.

LARYNX, ŒDEMA OF THE.

Synonyms.—Dropsy of the larynx; submucous laryngitis; œdematous laryngitis; œdema glottidis.

Definition.—A serous (may be sero-purulent or sero-sanguinolent) effusion into the submucous connective tissue of the larynx; usually above the vocal cords, it may occur below them.

Etiology.—Laryngitis; pharyngitis; tonsillitis; retro-pharyngeal and cervical abscess; injuries to the neck; swallowing irritant poisons; erysipelatous inflammation of the neck. Occurs also in connection with some general diseases, such as typhus and typhoid fevers, small-pox, scarlatina, measles, erysipelas, glanders, whooping-cough, pneumonia, croup, diphtheria, septicæmia, phthisis, and Bright's disease.

Symptoms.—Distress or pain, dryness and heat with sense of constriction in the pharynx and larynx; difficulty of swallowing; inspiratory dyspnœa (sometimes accompanied by a whistling or a stridulous sound), which may be so sudden as to destroy life in a very brief time; dry, harsh, and stridulous cough. Feebleness, hoarseness or extinction of the voice. Restlessness, anxiety, face flushed, eyes prominent, sensation of suffocation.

Differential Diagnosis.—From capillary bronchitis; from emphysema; from asthma; from croup; from laryngismus stridulus; from foreign bodies or polypi in the larynx; from aneurism of the aorta.

Treatment.—Free scarification; induction of vomiting by hypodermic injection of apomorphia; full doses of quinia, followed by pilocarpine; laryngotomy or tracheotomy if these fail, or if there is immediate danger of death. Catheterization of the larynx. Nutritious alimentation; if swallowing be difficult, rectal alimentation; careful stimulation. The judicious use of astringent inhalations in spray may be useful in cases of moderate severity. External application of ice with the continuous use of ice in the mouth, if the case is moderate and can be cautiously *watched.* (See Laryngitis.)

LEAD POISONING.

Synonyms.—Saturnism; plumbism; lead colic; painter's colic; plumber's colic, etc.

Etiology.—Lead may be introduced into the system through the lungs, the stomach, or the skin (?); by inhalation, by ingestion of fluids conducted through leaden pipes, by application to the skin of some cosmetics, ointments, etc.

Symptoms.—A blue line on the gums (especially corresponding to Steno's duct and to the lower incisors) at their junction with the teeth (may be absent); a brown or black incrustation on the teeth with a tendency to rapid decay; emaciation; dry, harsh skin; sallow, earthy complexion; conjunctivæ yellowish (sometimes stained from the lead); thirst and anorexia; offensive breath; pulse often slow. Lead colic—severe griping pains; absolute constipation; retracted abdomen; nausea and vomiting; eructations; hiccough. Presence of lead in the urine (after use of iodide of potassium). Disorders of sensation — hyperæsthesia; numbness (absence of anæsthesia); formication; neuralgic pains (upper and lower extremities); headache. Amaurosis, single or double. Motor disturbances—tremors; epileptiform convulsions; local paralysis (does not usually occur after taking lead into the stomach), especially of the muscles of the forearm (wrist drop, dropped hand), sometimes of the muscles of the upper and lower extremities or the trunk, with more or less atrophy. Loss of faradic reaction (in the recti abdominal muscles).

Differential Diagnosis.—From myelitis and poliomyelitis; from intestinal colic, etc.

Treatment.—Prevent further introduction of the poison. Change of occupation may be required. Administer dilute sulphuric acid to form an insoluble sulphate. Sulphur baths to remove lead which may have collected upon the surface of the body. Iodide of potassium (gr. v. t. i. d., increased gradually to ʒ i.) to eliminate the lead from the system. For lead colic, opiates and fomentations; copious enemata of warm water; or calomel, gr. x., with opium, gr. ij., followed by a dose of neutral salts or castor oil. Alum, ℈i. to ʒ ss. t. i. d. (probably not eliminative). *Croton oil in combination* with opium. For the paralysis, *electricity. A milk* diet, it has been claimed, is a pr

ventive. Masks and moist sponges will aid in keeping the lead from entering the body by inhalation.

PRESCRIPTIONS.

℞ Magnesiæ sulph ..... ʒi.
Acid. sulph. dil..... ♏xx.
Tinct. hyoscyam..... ♏xx.
Aquæ camph..... ℥ij.
M. S. Take the whole, and repeat every two, three or four hours, after giving calomel or opium, until the bowels are freely evacuated. After the bowels have been moved thoroughly, the mixture may be continued at intervals for three or four days.

℞ Potass. iodid..... ʒi
Ext ergot. fld..... ℥i
Ext. nucis vom. fld..... ℥i
Tinct. cardamom. co..... ℥i
Syrup..... q.
Aquæ ..... ad ℥iv
M S. Tablespoonful night and morning, for paralysis.

LEUCOCYTHÆMIA.

Synonym.—Leukæmia.

Definition.—Increase in the number of the white corpuscles of the blood with simultaneous diminution in the number of the red corpuscles.

There are two varieties—the symptomatic, usually transitory (leucocytosis), and the idiopathic, essential, chronic form of the disease.

There are three varieties of the chronic essential leucocythæmia—the splenic (lienic), the lymphatic (glandular), and the myelogenic (medullary), begining in the marrow of bones.

Etiology.—Of the essential variety, almost wholly unknown. It occurs more frequently among males than females, most frequently between the ages of twenty and forty years; strong mental excitement (?); intermittent fever (?); syphilis (?); injury (?).

The symptomatic variety (leucocytosis) occurs in pregnancy, after large hemorrhages, in tuberculosis, cancer, syphilis, intermittent fever, acute or chronic enlargement of the spleen or groups of lymphatic glands, pyæmia, acute yellow atrophy of the liver, septicæmia, diphtheria, etc.

Symptoms.—The essential disease, in a majority of cases, develops insidiously, and may be far advanced before the patient is aware of the existence of a serious malady. In some cases it seems to have a more distinct beginning. The usual initiatory symptoms have been pain in the left side, pallor and debility, or hemorrhage from some source.

In some cases, the first symptom noticed by the patient has been a tumor in the left side (enlarged spleen) or tumors in the site of the superficial lymphatic glands. An examination of the blood with the microscope and careful physical examination of the spleen may reveal a certain number of cases which would otherwise escape recognition until the disease is far advanced. If the disease has made some progress, the symptoms are pallor (usually marked), debility (may be one of the first symptoms of which the patient complains), emaciation, dyspnœa, dropsies, hemorrhages (most frequently from the nose and the intestines), febrile movement (chiefly towards the termination), profuse perspirations, diarrhœa, cough, loss of appetite, occasional vomiting (sometimes severe gastro intestinal disturbance), difficulty of swallowing, occasionally retinitis (vision amblyopic), palpitation, small abscesses, salivation, stomatitis, frequent micturition, and occasionally jaundice and priapism. The condition of the blood constitutes the characteristic feature of the disease. It consists in an increase of the number of the white corpuscles and a decrease of the number of the red corpuscles. In addition, there is a corresponding change in its chemical composition and enlargement of the spleen or lymphatic glands or both. The course of the disease is chronic and invariably fatal.

Differential Diagnosis.—From benign anæmia; from pseudo-leucocythæmia; from chlorosis; from hæmatophilia.

Treatment.—Thus far it has been without permanent benefit. Iron, iodine, or iodide of iron are usually recommended. Hypodermic injections of ergotine or ergot. Phosphorus, one-fiftieth to one-thirtieth of a grain once, twice, or three times daily. Transfusion of blood.

PRESCRIPTION.

℞ Ergotin..... .. ..gr. xl.
Glycerin..... .....♏ xxx.
Mix carefully and add water to ♏ cxx.
Fifteen drops represent 5 grains of ergotin. For hypodermic use.

LEUCOCYTHÆMIA—PSEUDO.

Synonyms.—Splenic anæmia or cachexia; Hodgkin's *disease; Adénie* (Trousseau); lymphatic anæmia; lymph-*adenoma.*

In all important respects the disease resembles essential leucocythæmia except that the increase of white blood-corpuscles is lacking.

The course of the disease is usually more rapid than that of essential leucocythæmia, and probably it always terminates fatally.

The objects in treatment are palliation of symptoms and prolongation of life.

LIVER, ABSCESS OF THE.

Synonyms.—Suppurative hepatitis; local parenchymatous hepatitis; hepatic abscess.

Etiology.—Inflammation of the bile-ducts or the veins; embolism; occurs idiopathically. A warm climate, alluvial soil, and miasm; external injury, such as a blow (rarely); dysentery and ulceration of the intestine (?); habitual use of stimulants and highly seasoned dishes (?); impaction of calculi; lodgment of a lumbricoid worm.

Symptoms.—(May be absent or masked.) Chill or chilliness; pain in back and limbs; headache; dry skin; coated tongue; bilious vomiting; increased heart's action; increased arterial tension. Jaundice in some cases; urine loaded with bile pigment. When pus forms, rigors, followed by fever and sweats; gastric irritability; prostration and wasting; sometimes diarrhœa or dysentery. If the abscess tends toward absorption, the symptoms subside; if it enlarges, they increase; movements become painful; breathing difficult; short, dry cough; a fluctuating tumor in the hypochondrium if the abscess points externally. Locally, a feeling of uneasiness, constriction, weight, dragging; often pain and tenderness; sometimes pain in either or both shoulders.

Physical Signs.—Increase in size can usually be detected by palpation, percussion, and mensuration; hepatic dulness increased in directions varying according to the situation of the abscess; fluctuation can sometimes be felt, surrounded by a ring of inflammatory induration. All physical signs may be absent.

Complications.—Local pleuro-pneumonia (if the abscess discharges through the right lung); perforation of the pericardium; peritonitis from rupture into peritoneal cavity; perforation of the intestine.

Differential Diagnosis.—From echinococcus of the liver; from dropsy of the gall-bladder; from cancer; from abscess of the abdominal wall; from purulent effusions into the right thoracic cavity; from cancer of the stomach; from empyema, from hydrothorax; from other diseases of the liver. Positive diagnosis may be impossible.

Treatment.—Quinia (gr. xx.), repeated at intervals; opium to relieve pain; fomentations or turpentine stupes; aspiration as soon as pus can be detected, followed by free incision, if it is evident that adhesions have occurred, and washing out the cavity; repeated aspiration may effect a cure. Generous diet; alcoholic stimulants; supporting measures. Leeches, blisters, purgatives, alkalies, ipecac (xx. to xxx. grain doses), chloride of ammonium (xx. grain doses) have been used as preventives measures in tropical countries.

LIVER, ACUTE YELLOW ATROPHY OF THE.

Synonyms.—Acute parenchymatous hepatitis; malignant jaundice; typhoid icterus; hemorrhagic icterus.

Definitions.—An acute inflammation involving the hepatic cells, accompanied by characteristic symptoms; or a general disease with a characteristic local lesion. The liver is usually diminished in size.

Etiology.—Obscure. It occurs in both males and females; has been observed in pregnant women, and also in connection with constitutional syphilis.

Symptoms.—Gastro-intestinal catarrh; coated tongue; loss of appetite; nausea and vomiting (very constant symptom); constipation; headache; epigastric tenderness; slight jaundice (always present), which gradually deepens; occasionally increased pulse, and slight fever. After these mild symptoms have lasted a variable period, the icterus becomes decided; pulse rapid, 140; may suddenly fall to 70-80, and fluctuate several times a day; insomnia; intense headache; pulse becomes uniform at 140–160; fever, irregular; temperature may reach 107° F., or more, may not rise above 99½° F.; may be as low as 96° F.; tongue and gums brownish and dry; sordes; foul breath; nausea and vomiting (coffee ground); severe pain in epigastrium and right hypochondrium; tenderness in hepatic region. The liver diminishes and the *spleen increases* in size. In some cases, the diminu-

ment. The irritability and restlessness are follo
noisy delirium, passing into low-muttering deliri
coma (constant); or convulsions (least constant).
cases, the invasion is sudden; characterized by vo
prostration, a febrile movement, jaundice developed
a few hours, and cerebral symptoms.

Differential Diagnosis.—From gastro-duod
tarrh; from yellow fever; from puerperal fever
puerperal septicæmia.

Treatment.—Meet the symptoms as they are
oped. The cerebral symptoms may be treated with
and the bromides. Alcoholic stimulants for the
action of the heart. In cases of recovery, there has
been marked doubt as to the correctness of the diag

LIVER, CANCER OF THE.

Synonym.—Carcinoma of the liver.

Etiology.—Obscure. Heredity. Occurs in ad
life, particularly between forty and sixty, with nearl
frequency in both sexes. The disease is usually sec

Symptoms.—Are sometimes obscure, or masl
those of cancer in some other organ, such as the st
Disorders of digestion; flatulence; constipation; a fe
uneasiness, tension, or pain in the right hypochon
emaciation. Jaundice occasionally; ascites in some
usually not present. Peritonitis may occur. Hæmor
hemorrhages from intestinal mucous membrane;
diarrhœa succeeds the constipation; fawn-colore
plexion; feebleness; hands and feet cold; skin d
harsh; facies dejected and worn. The disease is inv
fatal.

***Physical* Signs.**—On palpation, soreness on pr
the organ extends beyond the margin of the ribs; it i
rated and nodulated, with irregular outline; on per
the area of hepatic dulness is increased, particula

ward. Exceptionally the liver is not enlarged. As a rule the spleen is not enlarged.

Differential Diagnosis.—From abscess; from echinococcus; from waxy and fatty liver; from cirrhosis; from syphilitic growths; from tumors in adjoining organs.

Treatment.—Is palliative and symptomatic merely. Stimulants and appropriate diet. Tapping for ascites.

LIVER, CONGESTION OF THE.

Synonyms.—Hepatic congestion; hyperæmia of the liver; nutmeg liver.

Definition.—An abnormal increase in the amount of blood in the organ. The quantity of blood is liable to constant fluctuations normally, due to the process of digestion.

Etiology.—Habitual excesses in eating; alcoholism; the use of stimulating condiments; lead and phosphorus; malaria; chronic valvular diseases of the heart; obstructive disease of the lungs; injury of the semilunar ganglion; the sudden suppression of habitual hemorrhages (hæmorrhoids); exposure to excessive heat in tropical climates; sudden chill when heated; local injury; incipient inflammation; habitual constipation, etc.

Symptoms.—General malaise; aching of limbs and back; increased temperature at night; headache; yellowish coated tongue; anorexia; nausea (gastric catarrh); uneasiness, tension, and tenderness over the hypochondrium; left decubitus is irksome; slight jaundice, or "muddy" aspect of the complexion; the urine contains some pigment and abundant deposits of urates; in severe cases vomiting of bile and bilious discharges; in protracted forms, gastro-intestinal disturbances.

Physical Signs.—Area of hepatic dulness universally enlarged. Enlargement of the hepatic space evident on inspection, palpation, and mensuration.

Differential Diagnosis.—From catarrh of the bile-ducts with jaundice.

Treatment.—It must be borne in mind that the condition usually constitutes only a link in a long series of pathological processes, and that the nature of the cause determines whether the result of treatment will be permanent or temporary. If due to pulmonary or cardiac obstruction, treat the primary affection, etc. If due to climatic

or malarial causes, adopt measures to counteract their influence. A mild saline laxative (citrate of magnesia or Saratoga waters). Lemonade and diluents. Fomentations, turpentine stupes, etc., to the hepatic region; a few leeches around the anus. If due to dietetic excesses, an emetic, abstinence, a laxative, and rest. In some cases of this latter class, leeches to the hepatic region in front, and an active purgative of calomel and rhubarb. Total abstinence from saccharine and starchy food, for months or more, as a *curative* measure.

LIVER, ECHINOCOCCUS OF THE.

Synonyms.—Hydatid disease; cystic degeneration; multilocular cyst of the liver.

Definition.—The penetration into the liver and subsequent development of the scolex (ova or embryos) of the tænia echinococcus (of the dog). Hydatids occur which contain no scolices (acephalocysts).

Etiology.—Carelessness or filth of those having dogs about them, as the ova are discharged with the excrement of the animal.

Symptoms.—May be absent if the cyst be small and deeply located. If large, a feeling of weight, heaviness, and dragging in the right hypochondrium; digestive disorders; ascites and jaundice (if the portal vein or hepatic duct be compressed); dry cough and dyspnœa (if the tumor be near the upper right lobe, displacing the diaphragm); irregular heart's action (if that organ be displaced); œdema of the lower extremities (if the vena cava be compressed); constipation and vomiting (if the intestines and stomach be encroached upon), etc. If the cyst break, the symptoms will vary according to the direction in which the perforations take place. The cyst develops slowly and insidiously, unattended by pain or fever, or notable derangement of the general health.

Physical Signs.—On palpation, the tumor is elastic, resisting but soft, fluctuating; often purring fremitus ("hydatid vibration"); rarely tenderness on pressure. The *tumor* may project from any part of the surface of the *liver*. The area of hepatic dulness depends upon the size of *the tumor*, which may be small or very large.

Complications.—Perforation of the pericardium

pleura, stomach, intestine, peritoneum, vena cava, with consequent inflammation or suppuration; pyæmia.

Differential Diagnosis.—From abscess; from cancer; from dropsy of the gall-bladder; from aneurism; from fluids in the pleural cavity; from ovarian and other tumors.

Explorative puncture, with microscopical examination of the fluid, is demonstrative.

Treatment.—Is surgical. Aspiration. Electrolysis. Injection of iodine into the mother-cyst. Incision.

LIVER, FATTY.

Synonym.—Hepar adiposum.

Definition.—An excessive deposit or infiltration of the hepatic cells with globules of fat.

Etiology.—Occurs with phthisis and other wasting diseases, such as cancer, gastric ulcer, chronic dysentery; chronic lung and heart affections; overfeeding; abuse of alcohol; deficient exercise; acute from phosphorus poisoning and yellow fever; acute fatty degeneration of the new-born.

Symptoms.—Are not characteristic. Dyspeptic disturbances are usually present; lack of tone; lassitude; pallor. In the most marked cases, the patient may be jaundiced, anæmic, and cachectic.

Physical Signs.—Gradual, moderate enlargement of the organ in a downward direction; shape normal, surface smooth, margins rounded; doughy consistence of the tissue. Signs of fatty changes in other organs and tissues. Does not give rise to dropsy.

Treatment.—None is called for in phthisis. In those addicted to dietetic and alcoholic excesses, the habits must be reformed, diet restricted, composed mostly of meat and fruits, fats withheld entirely, and moderate exercise enjoined (to fatigue daily), perhaps vigorous later. Tonics. Bicarbonate of sodium (in Vichy) sufficient to render the urine nearly alkaline (slightest possible acid reaction).

LIVER, SCLEROSIS OF THE.

Synonyms.—Chronic interstitial hepatitis; cirrhosis of the liver; gin drinker's liver; drunkard's liver; chronic diffuse inflammation of the liver.

quired; impaction of gall-stones; paludal cachexia
peritonitis; chronic phosphorus poisoning. Occ
frequently in men, in middle or advanced life. M
in children. May occur without known cause.

Symptoms.—Usually developed slowly and in
Heaviness and dragging in the right side; sense o
tion around the waist; increase in the size of t
pain and tenderness on pressure; occasionally ac
and fever due to local peritonitis; jaundice (not f
gastro-intestinal disturbance; anorexia; regurgit
acid matters; nausea and vomiting of bilious, gla
matter in the morning; bowels sometimes relaxe
times constipated; black tarry stools; tympanites;
œdema of feet, ankles, and genitals. Later, the live
contracts (there may be hypertrophic sclerosis); s
larges (not invariably); veins become visible on th
of the abdomen, especially on the right side; hæm
melæna, and other hemorrhages; gastric ulcer m
urine scanty, high-colored, brownish, deficient
loaded with urates; skin dry, harsh, and scurfy.
tion and weakness; sallow, earthy complexion;
spots and blotches.

Physical Signs.—Diminution in area of hepati
(may be largely increased); granulation and nodulati
surface of the liver, with a feeling of hardness (n
accessible to palpation when reduced in size); occ
friction sounds. Enlargement of the spleen. Dire
ination of the organ rarely furnishes sufficient d
correct diagnosis.

Differential Diagnosis.—From pylephlebit
fatty liver; from waxy liver; from cancer of t
from hydatid cysts; from cancer or tubercle of
toneum.

Treatment.—There are no measures by wh
structural change can be removed or the chronic
tion directly affected. The objects of treatment a
the progress of the disease and promote its tol

Definition.—Inflammation with increase of the interstitial connective tissue of the liver. It terminates in obliteration of the liver cells, small bile-ducts, and blood-vessels.

Etiology.—The use of alcoholic liquors (particularly when taken before food in the morning; "the morning drink"); hereditary syphilis (?); constitutional syphilis acquired; impaction of gall-stones; paludal cachexia; chronic peritonitis; chronic phosphorus poisoning. Occurs most frequently in men, in middle or advanced life. May occur in children. May occur without known cause.

Symptoms.—Usually developed slowly and insidiously. Heaviness and dragging in the right side; sense of distention around the waist; increase in the size of the liver; pain and tenderness on pressure; occasionally acute pain and fever due to local peritonitis; jaundice (not frequent); gastro-intestinal disturbance; anorexia; regurgitation of acid matters; nausea and vomiting of bilious, glairy, acid matter in the morning; bowels sometimes relaxed, sometimes constipated; black tarry stools; tympanites; ascites; œdema of feet, ankles, and genitals. Later, the liver usually contracts (there may be hypertrophic sclerosis); spleen enlarges (not invariably); veins become visible on the surface of the abdomen, especially on the right side; hæmatemesis, melæna, and other hemorrhages; gastric ulcer may form; urine scanty, high-colored, brownish, deficient in urea, loaded with urates; skin dry, harsh, and scurfy. Emaciation and weakness; sallow, earthy complexion; purpuric spots and blotches.

Physical Signs.—Diminution in area of hepatic dulness (may be largely increased); granulation and nodulation of the surface of the liver, with a feeling of hardness (not easily accessible to palpation when reduced in size); occasionally friction sounds. Enlargement of the spleen. Direct examination of the organ rarely furnishes sufficient data for a correct diagnosis.

Differential Diagnosis.—From pylephlebitis; from fatty liver; from waxy liver; from cancer of the liver; from hydatid cysts; from cancer or tubercle of the peritoneum.

Treatment.—There are no measures by which the structural change can be removed or the chronic inflammation directly affected. The objects of treatment are to arrest the progress of the disease and promote its tolerance. To

aid in securing the first, alcoholics must be interdicted; or if not possible to do that, only wine and malt liquors should be used and always with food or during digestion. To attain the second, treat the dyspeptic symptoms (see Dyspepsia and Chronic Gastritis). For the treatment of the dropsy, see Ascites. Improve the general health of the patient by the use of iron, quinia, the mineral acids, fats, etc., and general hygienic measures.

LIVER, WAXY.

Synonyms.—Amyloid liver; lardaceous liver; albuminoid liver.

Definition.—A degeneration of the liver characterized by the presence of an albuminoid material.

Etiology.—Prolonged suppuration, especially in connection with diseased bone (caries of the ankle-joint in children seems to be an exception), tubercular cavities, ulcers, etc.; syphilis; malaria. It has been observed primarily only in connection with the form of Bright's disease called waxy or amyloid kidney.

Symptoms.—At first, those of the disease causing the affection. Appetite impaired (exceptionally voracious); gastro-intestinal irritation; frequent liquid stools, either pale, or dark from the presence of blood. Diarrhœa, frequently uncontrollable. Urine pale, abundant, of low specific gravity, containing waxy casts and traces of albumen. Anæmia; pallor; emaciation; shortness of breath on slight exertion. Jaundice is rare; ascites occurs in some cases, often preceded by œdema of the lower extremities.

Physical Signs.—Liver enlarged, often extending considerably below the margin of the false ribs; smooth, firm, or hard to the touch, with well-defined borders; tenderness absent unless there is local peritonitis. Spleen enlarged and firm.

Differential Diagnosis.—From fatty liver; from hydatids; from cancer.

Treatment.—Can accomplish little or nothing in the advanced disease, hence prophylaxis is of paramount importance. The causative suppuration should be arrested early; if syphilis be suspected, antisyphilitic treatment should be instituted, mainly by the iodides, syrup of the iodide of iron and manganese; iodide of potassium; or

iodide of ammonium, gr. v. every four hours, well diluted with water. Avoid mercurials (?). Diet should consist of milk, eggs, fish, animal broths, etc., given in small quantities at short intervals; starch, fat, and sugar must be avoided. Inunctions of cod-liver oil or other fats are useful auxiliaries. Invigorating hygienic influences.

LUNGS, APOPLEXY OF THE.

Synonyms.—Hemorrhagic infarctus; pneumorrhagia.

Definition.—Hemorrhage following plugging of terminal branches of the pulmonary artery; usually circumscribed; may be diffused.

Etiology.—Embolism; frequently due to cardiac disease; pyæmia.

Symptoms.—Dyspnœa (sudden and severe); hæmoptysis (small dark coagula in connection with cardiac disease); pain, if the infarction occurs near the pleura.

Physical Signs.—Respiratory murmur feeble or absent; bronchial respiration, and circumscribed dulness. In pyæmic cases, rapid rise in temperature.

Differential Diagnosis.—From pneumonia; from pleurisy.

Treatment.—Absolute rest in bed. Dry cups to the chest; sinapisms to the extremities. If associated with cardiac disease, regulate the heart's action, and increase its force (stimulants moderately, digitalis in full doses). If it occurs with pyæmia, supporting measures (stimulants, quinia, and iron, etc.). If pneumonia or pleurisy follows, treat it according to indications.

LUNGS, CANCER OF THE.

Synonym.—Pulmonary carcinoma.

Etiology.—Heredity; usually secondary to cancer in other parts of the body. Occurs generally in advanced life (forty to sixty); more frequently in males.

Symptoms.—Pain; emaciation; fever; night-sweats; some dyspnœa and cough; muco-hemorrhagic expectoration (currant-jelly); enlargement of supraclavicular lymphatic glands.

Physical Signs.—Nodular form: Enlargement of the chest on the affected side, with widened and flattened inter-

costal spaces; absence of fluctuation; deficiency or absence of movement; absolute dulness; weakened or absent breath-sounds over a varied area; vocal resonance diminished or absent; respiratory sounds feeble or absent; bronchial respiration if the tumor is closely connected with a large open bronchus; displacement of heart or diaphragm.

Infiltrated form: Difficult to diagnosticate. Presents even less distinctive physical signs than the nodular variety.

Complications.—Bronchitis; emphysema; pulmonary collapse.

Differential Diagnosis.—From pleurisy with effusion; from phthisis; from broncho-pneumonia; from acute miliary tuberculosis; from aortic aneurism.

Treatment.—Palliation of the symptoms.

LUNGS, EMPHYSEMA OF THE.

Definitions.—Increased quantity of air in the air-cells producing dilatation with or without rupture of the walls of the air vesicles (vesicular emphysema). Air in the interlobular cellular tissue (interlobular emphysema, and due to rupture of air-vesicles; always present in advanced vesicular emphysema).

Etiology.—Interlobular emphysema may be produced by violent efforts of coughing (whooping-cough, etc.) or straining (parturition, straining at stool, etc.). It may occur from perforation of the lungs from without. Vesicular emphysema may occur with or without bronchitis, with impaired nutrition (senile changes); pneumonia; chronic tuberculosis; atelectasis; pleurisy; pressure on the trachea or main bronchi; excessive efforts or straining.

Symptoms.—In the slightest degrees, may be absent; otherwise, dyspnœa (constant symptom) with bronchitic or asthmatic attacks, or both. Respiratory efforts labored, breathing chiefly abdominal. Cough (may be absent unless bronchitis exists) with characteristic paroxysms. Vertigo, in advanced emphysema. Dyspepsia; hemorrhoids, with rectal hemorrhages.

Physical Signs.—In advanced cases, countenance dusky; eyes prominent; nostrils dilated; the sterno-cleido-mastoid muscles project in their inspiratory efforts, shoulders *elevated and drawn* forward; bulging of the infra-*clavicular and mammary* regions ("barrel-shaped," may be

absent); whole chest moves vertically up and down with respiratory efforts; sinking in of the soft parts above the clavicles and sternum; the upper intercostal spaces are widened; apex-beat lower and more toward the median line than normal; heart-sounds feeble. Vesiculo-tympanitic resonance (especially over upper lobe of left lung). Prolonged expiratory sound (low-pitched). Inspiratory sound short and feeble or actually suppressed. Vocal fremitus and resonance, and the bronchial whisper variable.

Differential Diagnosis.—From dilatation of the lung due to acute tuberculosis; (?) from pneumothorax; from fibrosis of the lungs; from bronchitis; from asthma; from catarrhal pneumonia; from aneurism of the arch of the aorta; from cardiac diseases; from phthisis.

Treatment.—Is mainly palliative. Improve the general health by iron (ethereal tincture of the acetate), cod-liver oil, and quinine. Relieve the asthmatic, bronchitic, and other symptoms by appropriate remedies. Iodide of potassium, gr. v.-xx. (especially for bronchitis), or bromide of sodium, gr. xx. to xl., three or four times a day continued for a long time; arsenic in small doses persistently; aromatic sulphuric acid, gtt. xxv. four times a day; strychnia; galvanism. Anodynes for cough. Breathing of compressed air and expiration into rarefied air. Change of climate. Stimulants in small quantities with meals. Avoid overloading the stomach. Avoid, absolutely, all violent physical exertion, exposure to cold, and all influences liable to develop attacks of asthma or dyspnœa. Life in the open air is advantageous. Dyspepsia and cardiac complications must receive appropriate treatment.

PRESCRIPTION.

℞ Spts. etheris co.,
Sol. morphiæ (U. S. P.)...āā ʒ i.
M. S. Teaspoonful p. r. n. to relieve dyspnœa and paroxysmal cough.

LUNGS, GANGRENE OF THE.

Definition.—Putrefactive disorganization of lung tissue. It may be diffused or circumscribed (most frequent).

Etiology.—Local diseases, such as pneumonia, phthisis, cancer, hydatids, bronchial dilatation, etc.; embolism (bene-

agic infarction); blood poisoning, as after low fevers, mia, septicæmia, glanders, etc.; extreme exhaustion; ous diseases, as dementia, softening of the brain, alcosm, and epilepsy; traumatism.

ymptoms.—Great prostration; pallor; emaciation; rapulse; rapid, oppressed respiration; hæmoptysis; cough; ectoration of offensive gangrenous masses (containing elastic pulmonary tissue); fetor of breath, especially r coughing. The gangrenous process may exist for e time previous to the development of marked general ptoms. It may exist without attendant symptoms.

hysical Signs.—Dulness on percussion (within a lim- area); moist râles; weak bronchial breathing or absence he respiratory murmur; gurgles and respiratory sounds icative of a cavity.

omplications.—Extensive bronchitis or pleuritis; orrhage.

ifferential Diagnosis.—From fetid bronchitis; from chiectasis; from pneumothorax; from tuberculous cavi- from pulmonary abscess.

reatment.—Abundant nourishment; alcoholics freely; cs—ammonia, bark, ether, camphor, mineral acids, qui- ; small doses of morphia (to relieve pain, allay cough irritation); oil of turpentine, gtt. v. every two hours; lyptol, either in pearls, ♏ v., or emulsified; disinfec- s—benzoic acid, thymol, carbolic acid, potassium chlor- tincture of chloride of iron, acetate of lead. Inhala- s (?) of carbolic acid, iodine, turpentine, sodium benzoate, thymol, salicylic acid. Antiseptic gargles, such as dy's fluid. During convalescence, tonics, cod-liver oil, ge of air, nutritious diet, and good hygiene.

LUNGS, HYDATIDS OF THE.

ynonym.—Echinococci of the lungs.

efinition.—The development of cysts due to the pres- of the cysticercus cellulosus.

tiology.—Is implied in the definition.

ymptoms.—Those of phthisis—emaciation; night- ats; cough; dyspnœa; expectoration of bloody and pu- *nt sputa. Fragments of* the cyst or even an entire cyst *hooklets of the parasite* may be expectorated, and ren- *e diagnosis certain.*

Pysical Signs.—Enlargement of the affected side; dilatation of intercostal spaces; displacement of the heart or liver, or both; fluctuation and purring tremor if the cyst is superficial; dulness on percussion; increased resistance; vocal fremitus diminished; vesicular murmur absent, and replaced by bronchial voice and breathing; egophony at times; signs of a cavity when the cysts are expectorated.

Complications and Sequelæ.—Perforation of the diaphragm and abdominal abscesses; marasmus; hemorrhage; gangrene, etc.

Differential Diagnosis.—From phthisis; from circumscribed pleurisy. Diagnosis is uncertain until the characteristic sputa are obtained. The presence of the scolices of ecchinococci in the sputa is not positive proof that the hydatid cyst is pulmonary; it may be hepatic, communicating with a bronchus.

Treatment.—If positively diagnosticated, aspiration of the cyst, followed by injection of iodine; otherwise, the case must be treated on general principles.

LUNGS, ŒDEMA OF THE.

Definition.—Effusion of serum into the air-vesicles and interstitial tissue of the lungs.

Etiology.—General dropsy (from any cause); adynamia after protracted fever; renal or cardiac disease; capillary bronchitis; pneumonia; miliary tuberculosis.

Symptoms.—Increased frequency of respiration (panting); great dyspnœa; lividity; cough; serous expectoration (blood-stained if congestion is present); bronchorrhœa.

Physical Signs.—Dulness on percussion (double); respiratory murmur feeble or broncho-vesicular; fine, moist, and sometimes crepitant râles on both sides (characteristic); vocal resonance and fremitus may be increased.

Differential Diagnosis.—From pneumonia; from hydrothorax; from capillary bronchitis.

Treatment.—If in connection with Bright's disease, hydragogue cathartics, diuretics, and diaphoretics; dry cups over the chest and loins (perhaps forty or fifty). If with heart disease, revulsives, digitalis, or other appropriate treatment. If associated with adynamia (with fevers), stimulants, tonics, and sustaining measures. If in connection with pulmonary congestion, counter-irritation by dry

cups and sinapisms; diuretics, diaphoretics, and hydragogue cathartics. The position of the patient should be frequently changed.

MEASLES.

Synonyms.—Morbilli; rubeola (formerly, and with many writers at the present time).

Definition.—A contagious, self-limited, eruptive fever, with catarrh of the mucous membrane of the air passages, and terminating in about two weeks. Second attacks may occur. As a rule, occurs only once.

Etiology.—Infection. Children are most frequently affected. Spontaneous origin not established. Propagated only by contagion. May infect through its entire course.

Symptoms.—*Incubation stage:* Usually about eight days after exposure (may vary from six to fourteen days). No symptoms.

Invasion stage (lasts three to five days): Weariness, muscular soreness, headache and backache. Chilliness, rigors, or convulsions. Slight pyrexia. Temperature rises rapidly to 101° F. or 102° F. (rarely to 104° F.). Languor, irritability, restlessness. Delirium (rarely) at night. Coryza, epiphora, eyes injected and watery, photophobia; eyelids red and tumefied. Sneezing, occasionally epistaxis. Sense of fulness or pain over frontal sinus. Throat sore and red, voice husky. Cough, hurried respiration, dry rhonchal sounds. Precordial oppression. Epigastric tenderness; vomiting. Bowels either constipated or relaxed.

Eruption stage (lasts from five to seven days): The rash appears on the fourth day (may vary from first to eighth day). Usually begins upon the roof of the mouth, the face (chin) or forehead, spreads to the trunk, lastly to the limbs, noticeably upon the back of the hand. It extends over the entire body in from two to four days. (Rarely it commences on the limbs.) Begins as small, scattered red points with intervening spaces of nearly healthy skin, slightly elevated and papular, flattened at summit. The rash soon coalesces in patches which are crescentic or irregularly circular. The color is of various tints of red, more marked on exposed parts, and fades temporarily under pressure. Minute vesicles and small petechial extravasations may form. The rash usually begins to fade within thirty-six hours from the time of its appearance upon a part, and leaves a coppery dis-

coloration. Desquamation slight and lasts from four to seven days. Face and hands often puffy. Irritability of the skin. Catarrh may invade the Eustachian tube and cause partial deafness. Tongue furred, moist, some enlarged papillæ; it cleans in patches (may be dry and brown). Vomiting and diarrhœa may persist. Bronchial catarrh, muco-purulent expectoration, rhonchal fremitus. Urine febrile, with peculiar odor. Albuminuria and hæmaturia may be present. Peculiar odor of breath and sweat (mouse).

Temperature increases until the height of the rash, rarely above 103° F. Morning remissions may be present or not. Defervescence ensues from fourth to tenth day by rapid crisis, temperature falling from two to five degrees F. in twelve hours, and after one or two slight evening exacerbations to or below normal.

Varieties.—*Morbilli mitiores, vulgares, or simplices.* This variety has just been described.

Sine eruptione: Fever and catarrh, but no rash.

Sine catarrho: Catarrh and even pyrexia may be absent, the rash being the main symptom.

Graviores, malignant, black, or hemorrhagic: May be mild at first or virulent from the beginning. Typhoid symptoms, grave nervous disturbance. Prostration; weak, frequent and irregular pulse; cold extremities; dry, brown tongue; sordes. Twitchings, picking at bed-clothes; low muttering delirium or stupor. Eruption livid, purple, or black; petechiæ; hemorrhages from mucous surfaces. Bronchitis, pulmonary congestion, or pneumonia may develop. Death usually occurs from asthenia, coma, or asphyxia.

Complications and Sequelæ.—Croupous or diphtheritic laryngitis. Secondary meningitis; capillary or chronic bronchitis; lobular collapse; croupous or catarrhal pneumonia; acute or chronic phthisis; acute tuberculosis; inflammation of eyes, nose, or ears; inflammation of glands, which may remain enlarged; diarrhœa, which may become chronic; dysentery, acute Bright's disease (not common); diphtheritic or gangrenous inflammation of the genitals; general debility.

Differential Diagnosis.—From small-pox; from roseola (rubeola); from scarlatina.

Treatment.—Isolation. Guard against complications involving the respiratory organs. Rest in bed in a darkened, well-ventilated room at a uniform temperature of 65

MELANÆMIA.

Definition.—A condition of the blood in which granular pigment is present.

Etiology.—Melanæmia is an accident or complication of the severer forms (long-continued) of malarial fever.

Symptoms.—Granules of pigment lodge in the capillaries of the brain and cause headache; vertigo; delirium (infrequent) either active or low-muttering; stupor, coma; insensibility; paralysis or epileptiform attacks (rare); ptosis, etc. They may lodge in the kidneys and give rise to hæmaturia or anuria; in the liver and cause ultimately diarrhœa, ascites, intestinal hemorrhage. It has been stated that the pigment may produce retinal embolism demonstrable with the ophthalmoscope. Other characteristic symptoms are the bronzed (gray or grayish-brown) appearance of the skin and visible mucous membranes; and the microscopic demonstration of pigment in the blood, and, it may be, in the urine.

Treatment.—Quinia; iron; ergot; digitalis. Sodium pyrophosphate. Mild cases have recovered, but the mode of cure is unknown.

PRESCRIPTIONS.

℞ Quiniæ sulphat.....ʒ i.
Ferri redact.....gr. x.
Ergotin.....℈ i.
Digitalis.....gr. x.
M. Make into ten wafers. One wafer three times a day. For checking the waste of red corpuscles (?).

℞ Sodii pyrophosphat.....℥ i.
Ferri pyrophosphat.....℈ i.
M. S. A teaspoonful in sufficient water three times a day. Has been used for effecting the solution and discharge of the pigment.

MENINGITIS, CEREBRAL, ACUTE.

Synonyms.—Simple meningitis; primary meningitis; leptomeningitis.

Definition.—Inflammation of the pia mater and arachnoid. Some writers speak of two forms: first, that in which the lesion is chiefly developed at the base (basilar *meningitis*), and second, chiefly developed upon the convexity (meningitis of the convexity). This division is *pathological* rather than clinical.

Etiology.—Direct injury to the membranes (from trau-

mations of the cranial bones; prolonged mental labor with anxiety; chronic alcoholism; irritation by tumors and morbid deposits; heredity; rarely from a preceding acute inflammation; as a complication of chronic Bright's disease.

Symptoms.—Obscure and ill-defined. Dull and constant headache; tinnitus; vertigo; diplopia; mental irritability, vigilance, and depression; delusions; failure of mental faculties, ending at times in dementia; hyperæsthesia in some parts of the skin, with numbness in others; irregular spasms of various muscles; irregular motor paralysis; delirium, usually mild; strabismus; nausea and vomiting; obstinate constipation; defects of speech; amaurosis; falling to the ground, with or without losing consciousness; sometimes irregular epileptiform attacks; irregular pulse, etc. A moderate degree of the disease may occur without producing symptoms.

Treatment.—Moderate counter-irritation; potassium iodide; quietude of mind and body; appropriate hygiene—in general, that of acute meningitis, excepting the use of arterial sedatives. Tonics; iodide of iron; appropriate regimen; travel and exercise in the open air. If paralysis persists, electricity.

MENINGITIS, CEREBRAL, TUBERCULAR.

Synonyms.—Acute hydrocephalus; basilar meningitis; "water on the brain."

Definition.—Inflammation of the cerebral meninges characterized by the presence of tubercles. The possibility of its occurrence independent of the existence of tubercle in other parts of the body is claimed by some authorities.

Etiology.—Tubercular diathesis; bad hygiene; hereditary tendency. Affects children chiefly and those between two and ten years of age. Whether it occurs in children under one year of age is still a mooted point.

Symptoms.—*Premonitory:* Emaciation; easily fatigued; febrile movement; fretfulness; drowsiness; indisposition to childish sports; subdued look; sudden startings; grinding of the teeth during sleep (not restricted to these cases); headache; vertigo; diarrhœa alternating with constipation; vomiting; pains in the limbs; double vision. *In adults, the meningeal* affection is preceded by tuber

culous disease elsewhere (phthisis, tuberculous glands, etc.).

Invasion: Fever (may be preceded by rigors); temperature 102° to 103° F. at night, 99° F. in the morning (remission, which may be so marked as to lead to the error of regarding the disease as remittent fever); pulse irregular, varying between 80 and 134 to 140; hydrocephalic cry; frowning; face anxious; severe headache; frequent sighing; photophobia; vomiting; obstinate constipation; abdomen retracted; pupils unequal or contracted, may oscillate; congestion and œdema of the optic disk; disposition becomes irritable; hyperæsthesia, especially of hearing and vision; delirium and convulsions rare. The urine may contain albumen, and be diminished in quantity; may be suppressed. This stage gradually passes into the Stage of Compression: Drowsiness and somnolence; shrieks (hydrocephalic cry); movements inco-ordinate; stupor, from which the patient can be roused at first; later, absolute insensibility; facial expression abolished; strabismus (frequently external); double vision; dilated pupils; eyes open and staring; the ophthalmoscope may show tubercles of the choroid, swelling, etc., of optic papillæ, finally white atrophy of the disks; vision lost; delirium; irregular respiratory movements; pulse irregular and slow (may fall to 50) or exceedingly rapid; temperature higher than in the second stage, but remittent in type; cerebral patch, or tache (red line developed after drawing the finger across the abdomen quickly); rigidity of the muscles of the neck and spine; oscillation of the eyeballs (nystagmus); convulsions (frequently of one side only); "automatic movements" of one arm or leg or fingers (picking the nose, etc.); Cheyne-Stokes respiration; coma; muscular relaxation; subsultus tendinum; pulse becomes rapid, feeble and irregular; incontinence of urine; marked emaciation; death by apnœa or asthenia, or in convulsions. There is frequently an amelioration of symptoms in the second stage (lucid interval) which may give delusive hopes of recovery.

Differential Diagnosis.—From typhoid fever; from simple meningitis; from cerebral symptoms in cholera infantum (hydrencephaloid, spurious); from congenital hydrocephalus; from cerebral rheumatism in persons of advanced years; from irritation produced by intestinal worms.

Treatment.—Palliation of the symptoms; measures to olong life; potassium iodide (?). A hot bath for five min-es, followed by wrapping in blankets without wiping, in-ices free perspiration and increases the secretion of urine. romides, chloral, and opiates may be used to allay the pain the head, restlessness, and insomnia. Nutritious, easily ssimilated food. See also treatment of simple acute men-gitis. Blisters, ergot, cold to the head have long been sed, but with only questionable benefit. Bromide of potas-um, gr. i.–v., with hydrate of chloral, gr. i.–iij., every ree or four hours, according to the age of the child, may of service. Prophylactic treatment is extremely impor-nt, and relates to hygiene, nursing, measures to maintain trition at its highest degree, and avoidance of mental ertion.

Tubercular meningitis occurs in adults (most frequently males between the ages of twenty and forty years), and en, as a rule, it is associated with tubercles in other parts the body, especially in the lungs (invariably, according to me writers), but the symptoms in most cases are not so ll-defined as in children. The disease may begin sud-nly with fever and cerebral irritation, and it is in these ses chiefly that the distinctive symptoms appear. It does t pass through such a succession of stages as it does children. Sometimes the patients have symptoms of ntinued fever for several days, and then die. There are her cases in which it is exceedingly difficult, if not impos-le, to make a correct diagnosis. There are cases of gen-al tuberculosis in which there are no cerebral symptoms. ere is usually malaise, elevation of temperature (may be ght or marked, and the temperature may be low), chilli-ss or rigor, loss of appetite, furred tongue, headache ight or severe), delirium (mild at first, active subse-ently), impairment of mental faculties, twitchings of uscles, convulsions, coma, paralysis, hyperæsthesia. The tient may die comatose or in convulsions.

MENINGITIS, EPIDEMIC CEREBRO-SPINAL.

Synonyms.—*Cerebro-spinal* fever; spotted fever; epi-*mic meningitis; petechial* fever.

Definition.—*An essential* infectious fever, characterized

by inflammation of the membranes of the brain and spinal cord, and frequently attended with eruptions. It occurs in epidemics.

Etiology.—The special cause is unknown. Malarial poison (?); excessive fatigue (?); unwholesome food (?); exposure to cold (?); sewer-gas (?). The disease is not contagious (at most, contagious to only a very slight degree). Outbreaks occur simultaneously in widely separated localities, recur annually for a series of years, and then cease, to recur, perhaps, for years. It may occur at any period of life, although it affects children much oftener than adults. Unfavorable sanitary surroundings act as auxiliary causes. Male sex, cold seasons, military life, and fatigue with exposure, act as predisposing causes.

Symptoms.—Invasion usually sudden (without prodromata); rigor or chill; faintness; intense (usually) occipital, frontal, or general headache; vertigo; frequently epigastric pain and cerebral vomiting (bilious); constipation (not obstinate) and retracted or full abdomen; pain in the abdomen; tache meningitique (red mark appearing shortly after slight friction of the skin with the finger); diarrhœa may exist at any period, but occurs more frequently toward the close in bad cases; restlessness; fever (100° to 103° F., sometimes 105° or higher), generally with slight evening exacerbation (irregular fluctuations); pulse 100 to 120, and very variable, often not more than 60 to 70. Respiration irregular (Cheyne-Stokes—a series of inspirations increasing to a maximum, and then declining in force and length until a state of apparent apnœa is established). In a day or two, pain extends to the back of the neck and down the spine, usually increased by movement and pressure. Head drawn back. In three to four days, tetanic spasms; opisthotonos; pleurosthotonos; sometimes trismus, risus sardonicus, or strabismus (frequent). Breathing hurried, and labored from involvement of the respiratory muscles. Hyperæsthesia of the skin; severe pains in limbs. Mind at first clear (except in very severe cases), then clouded; muttering delirium; sometimes acute mania; stupor; deep coma in fatal cases. Wasting rapid, and, in severe cases, extreme. Urine bloody or albuminous in severe cases (nothing distinctive); may be retained or passed involuntarily when stupor sets in. Rarely epileptiform convulsions (common in children during invasion), or hemiplegia, paraplegia, or paralysis of some cranial nerve.

nally, amaurosis and deafness. A certain degree of ıobia may exist. The pupils may be dilated or con- in either case not responding to light. Tongue be- oated, and eventually may be dry and dark. Sordes present. Jaundice occasionally occurs. Petechial ı sometimes appears early. The eruption is most tly herpetiform; occurs chiefly about the lips and t often also on the limbs or trunk; erythema; rose- . bad cases, scattered purpuric spots appear which ɔome black or gangrenous. Hemorrhages. There aracteristic eruption. In a large proportion of cases, ; no eruption whatever; may be present in one .c and absent in another.

'orable cases, gradual subsidence of nervous phenom- stored consciousness; fall in temperature. Con- ıce protracted; headache persists for some time. ise, restoration may be partial; the mind permanently d; some paralysis remaining; death after many rom marasmus.

plications and Sequelæ.—Inflammation of (conjunctiva, cornea, choroid), one or both, especially t (?), which may end in suppuration (cornea or choroid) ıl destruction of its tissues; destructive inflammation ıner ear; inflammation of joints with purulent accu- ɔn; bronchitis, pleurisy, or pneumonia; pericarditis; :ditis; parotiditis; bed-sores; chronic hydrocephalus; nally aphasia.

erential Diagnosis.—From typhoid fever; from ; from tubercular meningitis; from worms.

atment.—Removal from without the area in which ɜase prevails is desirable. Curative measures are as nown. The symptoms of the local lesion and the : disease can be modified. At the very beginning, ood-letting (not in young children) and the applica- cold may be employed; the former during the first three days, the latter during the first week. To the head symptoms, use bromide of potassium in or thirty grain doses, combined with either chloral :hm doses of tincture of hyoscyamus. If these fail, to opium, preferably the subcutaneous injection of *ia. Opiates are salutary*, but narcosis is unnecessary. *'ics are indicated by* the weakness of the first sound *eart. The iodide* of potassium and mercury have

been used with the view of limiting the exudation and promoting absorption. Their utility or inutility has not been definitely ascertained. Alimentation is important. Moderate catharsis at the beginning. Blisters to nape of neck and spinal region (?). Quinine, gr. v. every three hours (?). Fluid extract of ergot (?), a teaspoonful every three hours (may be used with the bromide). Relieve symptoms. For active delirium, fluid extract of gelsemium (gtt. i. to v. every two to four hours) has been used. During convalescence, pure air, tonics, and good diet.

PRESCRIPTIONS.

℞ Potass. iodid... .....gr. xl.
Ex. conii fl. .....gtt. xl.
Aquæ .....q. s. ad fl. ℥ ij.
M. S. Two fluid drachms thrice daily. To promote absorption.

℞ Hydrarg. biniodid... .....gr. i.
Potass. iodid..... ʒ iv.
Syr. aurant. et
Aquæ.....āā ℥ ij.
M. S. A teaspoonful t. i. d.

℞ Potass. iodid.....ʒ iv.
Syr. sarsa. co. et
Tinct. gent. co.....āā ʒ j.
M. S. Teaspoonful t. i. d.

℞ Hydrarg. bichlorid.....gr. i.
Potass. iodid.....ʒ ij.
Tinct. gent. co.....℥ ij.
M. S. A teaspoonful t. i. d.

MENINGITIS, SPINAL.

Synonym.—Leptomeningitis spinalis.

Definition.—Inflammation of the spinal meninges. It may be acute (very rare, except as a secondary affection) or chronic.

Etiology.—Trauma (severe injuries, even without fracture of the vertebræ); caries of vertebræ; deep sacral bedsores; exposure to cold and wet; tubercles; tumors, especially syphilitic; extravasations of pus into the spinal canal; epidemic cerebro-spinal meningitis; extension from cerebral meningitis; scrofula; acute infectious diseases; acute rheumatism (rare); acute exanthemata; tetanus; chorea; hydrophobia (?); sexual abuse.

Predisposing Causes: Male sex; depressing influences; bad hygiene.

Symptoms.—*Prodromal:* Chill (may be absent); fever, more or less; malaise; headache, nausea; constipation; acid and high-colored urine. Very often complex from the frequent participation of the cerebral meninges.

Actual: Pain (frequently intense, located at points,

remittent) along the spine, increased by movement, radiating into the limbs and trunk; febrile movement; hyperæsthesia (in recent cases); contraction of muscles of neck and back, sometimes opisthotonos; stiffness of a section of the spinal column; rigidity of thoracic muscles and dyspnœa (when the cervical region is involved); fits of painful spasms or irradiations in the extremities, neck, and back, with involuntary startings; contractures; sometimes difficult mastication and deglutition; irritability of the bladder or retention. Later, paralysis, either partial or general, sometimes preceded by tingling, formication, and numbness; involuntary discharge of urine (retention) and fæces; profuse perspirations. Death may result from asthenia, asphyxia, or from the complications of myelitis; very frequently by apnœa from spasm of the respiratory muscles.

The chronic form may succeed the acute or may occur spontaneously. The symptoms are essentially the same as in the acute disease, differing only in degree. It has a latent, insidious, apyretic course. There is difficulty and pain in movements of the spinal column. Paralysis develops slowly. Hyperæsthesia and irradiating pains.

Differential Diagnosis.—From tetanus; from myelitis; from typhoid fever; from cerebro-spinal meningitis.

Treatment.—Absolute rest in a darkened room, avoiding dorsal decubitus. In the period of excitement, leeches or cups to the spine; hot douche (or large sponge dipped in hot water) or the hot iron to the spine; mustard plasters to rubefaction; cold applications; tincture of aconite root, gtt. ij., with deodorized tincture of opium, gtt. v.–x., and fluid extract of ergot, ♏ xv. to xxx. every two hours; hypodermics of morphia if the pain is severe. When the active symptoms have subsided, quinia gr. iij., with extract of belladonna, gr. ¼, every four hours; flying blisters; friction to the spine with mercurial ointment; potassium iodide in full doses; electricity and massage for the paralysis; later, injections of strychnia. Guard against bed-sores. Diet sustaining.

MIGRAINE.

Synonyms.—*Sick*-headache; megrim; hemicrania.

Definition.—*A* paroxysmal form of headache, fre

quently attended with nausea or vomiting, hazy vision, and various nervous phenomena.

Etiology.—Heredity; digestive disturbances; uterine disorders and catamenial periods; mental strain and excitement; fatigue or want of exercise; insufficient or excessive sleep; bad air, etc. Occurs more frequently in women than in men. Rarely developed after twenty-five or before puberty.

Symptoms.—The disease is paroxysmal and sometimes preceded by prodromal symptoms: Weariness; depression; vertigo; disturbed vision (partial blindness); chilliness; tingling in the arms or tongue; disorder of speech or hearing; want of appetite, etc.

Pain, usually unilateral, commencing in the supra-orbital region or the orbit, often extending over the entire half of the head; throbbing; lachrymation; conjunctival injection; tenderness over the cervical ganglia; local hyperæsthesia; photophobia; tinnitus; rings of light and muscæ volitantes float before the eyes; nausea and vomiting; pulse small, weak, and slow. Mental confusion, aphasia, and drowsiness culminating in a semi-comatose condition are sometimes observed. The attack may last from a few hours to a day or two. Often ceases to recur after forty years of age.

Treatment.—An impending attack may sometimes be prevented during the prodromal stage by diffusible stimulants—brandy or sherry with soda water; champagne; spirits of ammonia; a cup of strong tea or coffee; caffeine; ergot or ergotin; chloral hydrate; nitrite of amyl; potassium bromide; effervescing powders; or guarana. During the attack, perfect rest in a darkened room; carbonate of ammonia and spirits of mindererus; cold to the head; evaporating lotions. Forced mental exertion or sudden excitement may terminate a paroxysm. In the intervals, exciting causes should be avoided, gastric disorders corrected; arsenic, gtt. ij. of Fowler's solution before meals, continued for months; strychnia; general faradization and central galvanization; quinia; potassium bromide; iron; *zinc;* belladonna; hyoscyamus; valerian; the prolonged *use of* cannabis indica has given good results (the tincture *may* be used, ♏ v.–x. t. i. d.); tincture of actæa racemosa.

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PRESCRIPTION.

℞ Quin. sulphat..... gr. xv.
Pulv. belladon..... gr. iv.
Extr. digitalis..... . gr. viiss.
Extr. valerianæ..... gr. xv.
Melis ..... q. s.
Ut ft. pil. No. xx. Four days before the expected attack, 1 pill in the morning, 1 at bed-time; next day, 2 morning, 1 at bed-time; third day, 3 morning, 3 at night; fourth day, 4 morning, 5 at night.

MYALGIA.

m.—Muscular rheumatism (misnomer).

ion.—A neuralgic, painful affection of the mus- › not referable to injury or any other well recog- fic disease.

ry.—Exposure; draught; excessive exercise; fa- lity; strain; gout.

oms.—The first attack is usually acute and of set. Pain in the affected muscles; tenderness; tc. The degree of suffering varies; it is worse at sure often gives relief. The acute form lasts but ; the chronic is liable to return repeatedly.

es.—Cephalodynia; torticollis (cervical myalgia, › neck), wry-neck, or stiff-neck; omodynia, scapu- orsodynia; pleurodynia or rheumatism of the ı; rheumatism of the abdominal walls (myalgia is); lumbago (crick in the back).

ntial Diagnosis.—Pleurodynia from pleurisy; n of the abdominal walls from peritonitis; from affecting nervous trunks; from local inflamma-

ment.—In acute cases, rest is often all that is Sinapisms, followed by emollient applications. dynia, firm strapping of the affected side with aster. For lumbago, a wide piece of emplastrum resinosum) firmly across the back; over this a dage twice around the body; anodyne fomenta- odermic injections of warm water into the *uscles; turpentine* stupes; gentle friction; hypo- *morphia; iron* out the "crick," *i. e.*, apply a *ver the muscles*, several thicknesses of flannel

being interposed; exciting free diaphoresis; local depletion or dry cupping. Electricity is sometimes promptly effective.

In chronic cases, potassium iodide; bromide of potassium or ammonium; quinine; ammonium chloride; sulphur; guaiacum; arsenic; mezereon; the balsams; colchicum; tincture of actæa racemosa. Flannel to be worn next the skin; Rest; pressure; cold compresses; friction with stimulating and anodyne liniments; sinapisms or small blisters; local baths or douches; the continuous galvanic current; hypodermics of morphia; anti-neuralgic remedies, etc. (see Chronic Rheumatism).

PRESCRIPTIONS.

℞ Ammon. muriat. ..... ʒ i.
Tinct. ferri chlor. ..... fl ʒ i.
Aquæ. ..... fl. ʒ iij.
M. S. Teaspoonful t. i. d. in subacute and chronic cases.

℞ Guaiaci resini ..... ʒ i.
Spiritus vini pomi (cider brandy). ..... O. i.
M. S. Teaspoonful t. i. d.

MYELITIS, ACUTE.

Definition.—Acute diffuse inflammation of the substance of the spinal cord.

Etiology.—Injuries; strains; concussion; caries of the spine; irritation by neoplasms or clots; excessive venery (predisposing); extension of inflammation by contiguity of tissue; sudden cooling when overheated; occurs also as a complication in exanthematous (variola especially), typhus, and puerperal fevers and acute rheumatism; syphilis; excessive bodily exertion with exposure to cold or wet. Affects young adults most frequently; male sex (?); irritations and diseases of peripheral organs.

Symptoms.—*Prodromal* (may be absent): Chill, fever, and general malaise.

Onset: Pain in the back (less marked in acute spinal meningitis); sense of constriction of the trunk or limbs and joints; pain and soreness on percussion of the spine (may not be noticed except when the spine is percussed); pain and soreness in the limbs; occasionally twitchings, tremors, partial spasms of certain muscles or groups of muscles; tingling, formication, and numbness in the limbs and trunk, followed by anæsthesia; restlessness; paralysis of motion and sensation (usually paraplegia) follows in a few hours or

days; loss of power over bladder and rectum, often with irritability. Electro-muscular excitability may be unchanged, impaired, or lost. Priapism; reflex irritability may be abolished, impaired, unchanged or exaggerated; rapid atrophy of muscles; bed-sores; cystitis and pyelonephritis; after a few days, urine alkaline, not infrequently bloody; if the disease extends high up, dyspnœa, difficulty of swallowing, and difficulty of speech; obstinate constipation; metorism. Fever is rarely present at the beginning. Death usually ensues rapidly from apnœa or asthenia, or the disease may assume the chronic form.

Differential Diagnosis.—From acute spinal meningitis; from spinal hemorrhage (meningeal or into the cord); from acute ascending paralysis; from tetanus; from hysteria.

Treatment.—Dry cupping over the spine, or local abstraction of blood in plethoric subjects; absolute rest, avoiding dorsal decubitus; careful nutritious alimentation; hot douches to the spine at frequent intervals; applications of cold to the spine; a mustard plaster the length of the spine until beginning rubefaction (the propriety of cutaneous derivatives has been strongly doubted); internally, quinia, gr. iij.-v., every four hours; extract of belladonna, gr. $\frac{1}{4}$-$\frac{1}{2}$, every four hours; ergot. Supporting measures when symptoms of vital failure appear. Empty the bladder regularly. Prevent the occurrence of bed-sores; never allow pressure to remain upon one part for much length of time. Electricity is contraindicated in the acute stage. Iodide of potassium; inunction of mercurial ointment into the back (?).

MYELITIS, CHRONIC.

Definition.—The term includes several pathological lesions, such as induration, sclerosis, softening, and gray or gelatiniform degeneration, which develop slowly, run a tedious course without fever, and are ascribed to chronic inflammation.

Etiology.—Preceding acute disease; traumatic lesions and concussions of the cord; gradual compression; sexual excesses; excessive exertion with exposure to cold and dampness; syphilis; arrest of some habitual discharge (?); male sex; middle age. Occurs after infectious diseases, *puerperal diseases, acute* exanthemata, and with diatheses;

chronic alcoholism; chronic lead poisoning. Irritation and diseases of peripheral organs.

Symptoms.—Of very gradual development. Dull pain or uneasiness in some parts of the spine, increased by pressure, percussion, and hot or cold applications; sense of constriction around the body; rheumatoid pains; perverted sensations—numbness, coldness, furry feeling, cutaneous burning, formication; anæsthesia (rarely absent; marked hyperæsthesia rarely present), which may extend to the trunk; sudden twitchings; spasmodic movements; cramps in the legs; loss of power in the legs, with a sense of weakness and heaviness, uncertainty of gait, ending in paraplegia; sometimes involuntary contraction of the muscles of the legs; coldness of the feet; at first, increased reflex irritability in the paralyzed limbs, later the irritability becomes impaired or lost; rapid atrophy of leg muscles; bed-sores; paralysis of bladder (not as frequently pronounced as in the form of vesical weakness) and cystitis; gradual loss of sexual power (usually early; there are notable exceptions;) sometimes priapism; constipation (very constant) and meteorism; paralysis of rectum with involuntary discharge of fæces; sometimes general paralysis and atrophy of muscles. If the cervical part is affected, the upper extremities will be involved together with the respiratory muscles; dyspnœa and difficulty of swallowing.

Differential Diagnosis.—From spinal hemorrhage; from spinal meningitis; sometimes very troublesome to make a correct diagnosis.

Treatment.—Absolute rest for two or three months, guarding against bed-sores; mineral waters and baths; galvanism; nitrate of silver; chloride of gold; strychnia has been advised, although its use has generally been rejected; lactophosphate of lime with arsenic (?) and cod-liver oil; derivative measures of questionable value; dry cups or hot douche may be of some service; diet to be light and easily digestible; attention to bladder (faradization of bladder). Prophylactic: Individuals belonging to neuropathic families should have abundance of sleep, avoid over-exertion mentally, excesses of all kinds, alternate rest with work, avoid *violent* emotional excitement, etc. For the relief of the *pains*, the bromide of potassium, sodium, quinine, zinc, valerian; frictions with veratrine, oil of hyoscyamus; faradic brush or galvanic current; hypodermics of morphine.

MYELITIS OF THE ANTERIOR HORNS.

Synonyms.—Poliomyelitis anterior acuta; infantile spinal paralysis; essential paralysis of children; acute or chronic spinal paralysis of adults; acute atrophic spinal paralysis.

Definition.—A motor paralysis due to inflammation or degeneration of the gray anterior horns of the spinal cord.

Etiology.—Obscure. Occurs most frequently in children of from six months to four years; traumatic injuries; dentition; sometimes during convalescence from the acute exanthematous fevers; from prolonged exposure to cold; may be a sequel of typhoid and typhus fevers; puerperal diseases; chronic lead poisoning (?). It is rare in the adult.

Symptoms.—The invasion is usually sudden. Initial fever (may be absent) lasting from twenty-four to forty-eight hours, sometimes accompanied by vertigo, somnolence, pains in the back and limbs, coma, or convulsions (the above symptoms last only from a few hours to two or three days); complete paralysis, usually of one or both lower or upper extremities (rarely involving the upper first), and in the most severe cases all the extremities (loss of motion, but not of sensation); some of the muscles of the trunk may also be implicated; the affected muscles are relaxed; reflex excitability and tendon reflexes are quickly lost; reaction to the galvanic current exists longer than to the faradic; speedy wasting of the paralyzed parts; absence of bed-sores; the general health remains good; bladder, rectum, and sexual organs do not suffer. The disease may occur without any paralysis. The loss of power may affect only a few muscles of the paralyzed limb. After some weeks, improvement commences in some or all of the affected muscles and may end in complete recovery; but, as a rule, some of the muscles remain permanently paralyzed, giving rise to various deformities—club-foot, flexion of the hips, distortions of the hands, etc. In the chronic cases, there is no sudden invasion.

Differential Diagnosis.—From acute myelitis; from spinal hemorrhage; from progressive muscular atrophy; from paralysis due to cerebral affections; from paralysis due to local nerve-lesions; from myelitis due to compression (rapidly developed paraplegia in Pott's disease); paraly-

sis following delivery; spasmodic spinal paralysis (tabes dorsalis spasmodica).

Treatment.—Early, the measures applicable in acute myelitis. Belladonna, ergot, quinia, according to age; the initial stage, as a rule, is not dangerous; active purgatives; cupping or leeching; potassium iodide; hot or cold douche to the spine and tepid wet packs; electricity (galvanism); massage and passive motion; intermuscular injection of strychnia (gr. $\frac{1}{100}$–$\frac{1}{60}$) two or three times a week; attention to general health—nutritious diet; change of air; baths; cod-liver oil; iron; strychnia, etc. Surgical appliances to correct deformities; nerve-stretching (?).

NEURALGIA.

Synonym.—Neural hyperæsthesia.

Definition.—A paroxysmal symptomatic affection, characterized by pain which follows the anatomical course of sensory nerves.

Etiology.—*Predisposing Causes:* Neuropathic predisposition (a peculiar constitution which manifests itself by the most varied nervous phenomena); middle life; sexual periods of life; general disturbances of nutrition (anæmia, etc.).

Exciting Causes: Malaria (most frequently trifacial); metallic poisons (lead, copper, mercury) in the system; nervous shocks; hysteria; excessive fatigue; degenerative changes; rheumatism (?); gout (?); syphilis; exposure to cold and wet (trifacial); injury (wounds, contusions, etc.) to, pressure (pregnancy, tumors, etc.) upon, or irritation (periostitis, ostitis, exostoses, etc.) of a nerve; diseases of the central organs of the nervous system (inflammations, hyperæmia, tumors, scleroses, etc., of the brain and spinal cord); overwork of the eyes; errors of refraction; caries of the teeth; irritation and diseases of the generative organs; suppressed perspiration of the feet (?).

Symptoms.—Limitation of the pain to one nerve and its branches; apparently spontaneous recurrence of shooting pains; pain, paroxysmal in character, with distinct intermissions or remissions; frequently painful points (most commonly at the point of emergence from grooves or canals in bone, or where branches are given off) without, as a rule, change in the appearance of the skin; diminution of tactile sensibility of the skin; there may be hyperæsthesia.

1. Trifacial Neuralgia (prosopalgia, neuralgia of the fifth nerve, tic douloureux; most frequent in females): Pain (usually exceedingly intense) in the supra-orbital, infra-orbital, maxillary, and other regions of the head and face; photophobia; lachrymation; conjunctival injection; nasal mucous membrane red and temperature elevated on the side affected, etc. The attacks occur at irregular intervals.

2. Cervico-occipital Neuralgia: Pain over the mastoid process, on the cervical vertebræ, over the posterior cervical plexus, parietal portion of the head, sometimes radiating toward the ear, the anterior part of the neck, the clavicles, and scapula.

3. Cervico-brachial Neuralgia: Pain in the shoulder, neck, along the arm and hand, etc. Tender points near the cervical vertebræ, acromion end of the clavicle, over the deltoid, in the axilla, at the inner condyle of the humerus, near the lower end of the bones of the forearm.

4. Intercostal Neuralgia: Pain along one or more intercostal nerves, especially from the sixth to the ninth of the left side. Sometimes herpetic eruption. Painful points usually present.

5. Mastodynia (irritable breast): Pain in the mamma.

6. Lumbo-abdominal Neuralgia: Pain in the hypogastrium, spermatic cord, testicle, or uterus and labia majora. Tender points on the crest of the ilium, in the scrotum or the labia, above the symphysis pubis, near the lumbar vertebræ.

7. Crural Neuralgia: Shooting pains along the anterior crural nerve and its branches; tender points on the anterior superior spinous process of the ilium, in the groin, inner aspect of the thigh, knee and ankles.

8. Sciatica (hip-gout, most frequent in males): Shooting pains along the sciatic nerve and its branches, especially the posterior and outer part of the thigh, down to the leg and foot, and at the tuberosity of the ischium; sometimes difficulty in walking; muscular twitchings and cramps. Tender points upon the sacrum, at the sciatic notch, behind the great trochanter, in the popliteal space, external aspect of the patella, over the external malleolus, at the articulation of the tibia and fibula.

Treatment.—Local causes of irritation should be removed, *general health* and hygiene attended to, and exposure to *draughts* avoided. Constitutional condition should

receive careful attention, such as malaria, gout, rheumatism, syphilis, metallic poisons, etc. Iron in anæmia; quinine and arsenic in malaria (arsenic is especially serviceable in all forms), etc. Phosphorus (Thompson's solution) is useful in many cases (except sciatica). Nervous sedatives: opium or morphia, belladonna, cannabis indica, chloral hydrate, croton-chloral, potassium bromide, conium, atropia, tincture of aconite, veratria, turpentine, ammonium chloride eucalyptol, tincture of gelsemium (especially serviceable in dental) (♏ xv. in dill-water), cinchonidia salicylate (gr. v., every two hours). Pain should be relieved by the hypodermic injection of morphia, gr. $\frac{1}{6}$ to $\frac{1}{4}$, with atropia, gr. $\frac{1}{120}$ to $\frac{1}{100}$; deep injections of chloroform, ♏ v.–x. have been attended with some success. Whiskey in two ounce doses every half-hour until pain ceases (for tic). For local applications in milder cases: belladonna, hyoscyamus, stramonium, conium, tincture of aconite, chlorodyne; or, ointments of belladonna, stramonium, veratria, aconitia, and eucalyptol. Local galvanization or faradization; blistering, followed by morphia dressing; firing (a hammer dipped in boiling water and applied to procure redness and slight vesication); ether spray; cotton wet with ether or chloroform and applied to the painful spot; division and excision of nerves; nerve-stretching.

PRESCRIPTIONS.

℞ Butyl-chloral..... ..... gr. xv.
Spts. vini rectif..... .... fl. ʒ i.
Aquæ distill.... .....fl. ℥ ivss.
Syr. aurant. cort.....fl. ℥ ss.

M. S. One tablespoonful every two hours.

℞ Butyl-chloral .....gr. xxx.
Glycerinæ ferv..... ʒ iss.
Ext. glycyrrh..... ʒ i.
Aquæ distill.,
Syrupi simpl.....āā fl. ℥ iss.

M. S. Dose, twenty drops.

℞ Butyl-chloral .....gr. xxiv.
Glycerinæ,
Aquæ lauro-cerasi....āā fl. ℥ ss.

M. S. For hypodermic medication. Inject fr. 15–60 drops of the solution, as required.

℞ Ext. hyoscyami,
" conii.....āā gr. xl.
" ignat. amar.,
" opii.....āā gr. xxx.
" aconiti..... .gr. viiss.
" cannab. ind..... ...gr. xv.
" stramonii.....gr. xij.
" belladonnæ.....gr. x.

M. et ft. pil. No. lx.

℞ Quiniæ sulphat..... ʒ ij.
Morph. sulphat.....gr. iij.
Strychniæ.....gr. ij.
Acidi arseniosi.....gr. iij.
Extr. aconiti..... ..... ʒ ss.

M. et ft. pil. No. lx.

Thompson's solution is an alcoholic solution of phosphorus with glycerin; 1/50 of a grain at a dose, avoiding water for an hour before and after taking the medicine.

NEURASTHENIA.

(Cerebrasthenia and myelasthenia, either of which may exist independently of the other.—BEARD.)

Synonym.—Nervous exhaustion.

Definition.—A functional disease of the nervous system.

Etiology.—Impoverishment of nervous force, most common where the nervous diathesis predominates (an American disease; associated with sick-headache, neuralgia; epilepsy, hay-fever, etc.); shock of bereavement; domestic disappointment and grief; anxiety and mental worry on account of financial and other troubles (very liable to be followed by inebriety); exposure to heat (sunstroke may bring on many of the symptoms); most frequent between the ages of fifteen and sixty; more common in males than females.

Symptoms.—Very largely of a subjective character. Referable to the head, pain, pressure, sensation of tightness of the scalp, tenderness of the scalp, heaviness, sick-headache, deficient mental control (inability to concentrate the intellect on any task), mental irritability (irascible over trifles). Referable to the eye, congestion of the conjunctiva, asthenopia, muscæ volitantes, dilated pupils. Atonic voice (softness, faintness, lack of courage, and clearness of tone). Noises in the ears. Frequent blushing; insomnia; drowsiness; nervous dyspepsia; tenderness of the teeth and gums; rapid decay and irregularities of the teeth; salivation; deficient thirst and capacity for assimilating fluids; desire for stimulants and narcotics; abnormalities of the secretions (tears flow on the most trifling agitations); dryness and stiffness of the hair more common than in cerebral disease of a grave character; sweating of the hands and feet, with redness (palmar hyperidrosis). Tenderness of the spine and of the whole body; coccygodynia; pain in the back; heaviness in the loins and limbs; shooting pains like those of ataxy; pain in the feet; irritable heart (tremulous, irritable pulse, and palpitation). Local spasms of muscles; difficulty of swallowing; convulsive movements, especially on going to sleep; cramps, especially in the calf of the leg, and as soon as one gets into bed and asleep. Special idiosyncrasies in regard to food, medicine, and external irritants. Sensitiveness to heat and

cold (water and weather). Localized peripheral numbness and hyperæsthesia. Feeling of profound exhaustion unaccompanied by positive pain; ticklishness; vague pains and flying neuralgias; general or local itching; general and local chills; flashes of heat; cold feet and hands; nervous chills; sudden giving way of general or special functions; temporary paralysis; involuntary emissions; partial or complete impotence; irritability of the prostatic urethra; irritability of the genital organs of women; oxalates, urates, phosphates, spermatozoa in the urine; excessive gaping and yawning. Hopelessness. Morbid fears (symptomatic, and rarely exist alone); fear of lightning, fear of places, fear of open places, fear of closed places, fear of society, fear of being alone, fear of fears, fear of contamination, fear of everything. Reflex activity increased.

The disease may be unilateral. Patients may complain of one symptom, like sick-headache, spinal irritation, or neuralgia, and close examination determines it to be only one of the army of troubles by which they have been followed for years. Examination with reference to the most seemingly unimportant symptoms, with the view to obtaining accurate information and a complete history of the case, is essential. Very many of these patients present the appearance of perfect health.

Differential Diagnosis.—From organic or structural nervous diseases; from hypochondria (with which it is most frequently confounded); from general anæmia; from cerebral anæmia and hyperæmia; from spinal anæmia and hyperæmia; from hysteria; from spondylitis; from syphilis; from a common cold, and from rheumatism.

In an indistinct way, this disease has been recognized by the terms "general debility," "spinal weakness," "spinal irritation," "nervous debility," "nervous asthenia," etc., etc.

Treatment.—The majority of patients can be relieved or substantially cured. But this result cannot be obtained in a moment, nor by a mere prescription or suggestion. The more decided and positive the hereditariness of any case, the greater the difficulty in establishing a cure and the greater the liability to relapse. Hereditary neurasthenia may yield rapidly to treatment, but the relief is not as stable in character as that obtained in the neurasthenia which is accidental. Treatment must be constitutional.

eral muscular soreness; pain radiating from the inflamed point to its peripheral distribution; radiates into other nerves of the same plexus; the pain is of a tense, persistent, burning, tingling, or tearing character, with remissions (rarely) and exacerbations (nocturnal usually), and is increased by pressure; feels swollen; red line (sometimes) over the course, with hyperæsthesia of the skin over the whole area of distribution; numbness and formication; ultimately anæsthesia. If the nerve be sensory-motor, spasmodic contractions, cramps, paresis, and paralysis may ensue, followed by anæsthesia and atrophy of the muscles; cutaneous eruption may appear; the nails become clubbed; the hair falls out.

Differential Diagnosis.—From myalgia; from neuralgia; from thrombosis and embolism of the larger vessels of the extremities (phlegmasia dolens, etc.).

Treatment.—Remove the cause. Absolute rest of the affected part. Leeches along the course of the nerve; a full dose of quinia, gr. xv., with morphia, gr. ss.; or morphia hypodermically if the pain is severe; tincture of aconite root, gtt. ij. every two hours; galvanization (for the more chronic forms). Locally, flying blisters, electric brush, or oleate of mercury. In obstinate cases, potassium iodide or colchicum internally.

ŒSOPHAGITIS.

Synonym.—Catarrh of the œsophagus.

Definition.—Inflammation of the œsophagus.

Etiology.—Is a part of a morbid process involving the mouth, fauces, and stomach. From irritant poisons and corrosive substances. Erosions and ulcers of the mucous membrane; diseased follicles. Extension of the concomitant disease (croup, diphtheria); may be a complication in typhus, scarlet fever, small-pox, etc.

Symptoms.—Pain and heat in swallowing. Regurgitation of food, to which mucus or muco-purulent matter may adhere. Glairy, tenacious mucus rises into the pharynx, causing the sensation of a foreign body. Fever and thirst.

Differential Diagnosis.—From chronic and follicular *catarrh.*

Treatment.—That of the accompanying affection of the mucous membrane of the mouth. Let the patient suck

ice freely. Liquid, mucilaginous diet. Nutrient enemata. Fomentations externally. Opium to relieve pain and secure rest. Saline laxatives.

ŒSOPHAGUS, DILATATION OF THE

Synonym.—Ectasia of the œsophagus.

Definition.—An enlargement of the œsophagus, either uniform or in sac-like pockets (diverticula).

Etiology.—Fatty degeneration of the muscular layer; some obstruction; paralysis from any cause.

Symptoms.—Difficulty of swallowing; vomiting; regurgitation; hunger and thirst; emaciation, etc. A bulging, of variable size, below the level of the cricoid cartilage.

Treatment.—Treat the cause. Attention to diet. Liquid, nourishing food; nutrient enemata.

ŒSOPHAGUS, STENOSIS OF THE.

Synonym.—Stricture of the œsophagus.

Definition.—A narrowing of the œsophagus, congenital or acquired. It may be spasmodic.

Etiology.—A congenital defect. Hysteria and hypochondria. Compression from without: tumors, enlarged thyroid, aneurisms, caseous lymphatics, etc. Obstruction from within (foreign bodies, contraction of cicatrices, etc.).

Symptoms.—Increasing difficulty of swallowing; a sense of obstruction below; regurgitation. Spasm of glottis from pressure of tumor on recurrent laryngeal nerve; peculiar cough; sudden dyspnœa; toneless voice. Hunger and thirst, emaciation, final delirium. The diagnosis is made by exploration, inspection, and auscultation.

Treatment.—Depends on cause. If patient and persistent dilatation fails, surgery offers the only chance of relief.

PACHYMENINGITIS.

Synonyms.—Inflammation of the dura mater; hæmatoma of the dura mater.

Definition.—Inflammation of the dura mater, acute, chronic, or syphilitic, and involving either the external or internal layer of the membrane, or both.

Etiology.—*Pachymeningitis externa* usually follows *traumatic lesions of* the skull, diseases of the bones (carie

of the internal ear, the first cervical vertebra, etc.). It is rarely produced by syphilitic affections of the pericranium or erysipelas of the scalp. It may occur secondary to suppurative inflammation of the orbit. This form is essentially surgical. It is an acute affection, but does not give rise to symptoms which are very distinct (local pain, slight febrile movement) unless the internal layer becomes involved, and then there is *pachymeningitis interna* which is attended by marked symptoms.

Pachymeningitis interna may be secondary to pachymeningitis externa, or it may occur as a complication of puerperal fever, erysipelas of the face and scalp, typhoid and typhus fevers, small-pox, scarlet fever, chronic Bright's disease, pyæmia, acute rheumatism, and chronic diseases of the heart and lungs.

In this form the inflammation may involve the pia mater and give rise to meningitis proper.

Symptoms.—The initial symptoms simulate those of meningitis. Headache, periodical and local, and as a rule of extreme intensity. Apathy; somnolence; delirium, sometimes mild, sometimes like acute mania; loss of appetite; constipation; slow pulse (may be increased in frequency at first), perhaps as low as 40; later, the pulse becomes rapid and feeble; elevation of temperature. Elevation of temperature, associated with slow pulse, is considered quite characteristic of inflammation of any of the membranes of the brain.

Differential Diagnosis.—From meningitis, simple or tubercular.

Treatment.—Cold applications to the head; absolute rest; nutrition; counter irritation to the neck; leeches to the mastoid (if dependent upon ear troubles); bromides and chloral to keep the patient quiet (grains xx. of the former with x. of the latter every three or four hours); cathartics; stimulant foot-baths. It may be necessary to use opium to keep the patient quiet and comfortable.

PACHYMENINGITIS CHRONICA.

Pachymeningitis chronica involves, as a rule, only the *internal layer* of the membrane, and occurs as an idiopathic *disease.*

Etiology.—Old age; male sex; chronic alcoholism; may follow certain diseases, as typhoid fever, small-pox, etc.

Symptoms.—Develop insidiously and are interrupted by remissions. When the lesion is slight, it may not give rise to any symptoms. Dull headache; impairment of the intellect; feebleness of the limbs; unsteady gait; imperfect (slowness and difficulty) and incoherent speech; impaired nutrition; there may be sudden loss of consciousness, lasting a few minutes or longer, and then consciousness will return.

Treatment.—Sustain nutrition; change of climate. Iodide of potash and bichloride of mercury alternately in small doses, and continued for a long time (one several months and then the other). Hygienic measures

PACHYMENINGITIS SYPHILITICA.

Pachymeningitis syphilitica is a chronic affection, the essential characteristic of which consists in the presence of gummy tumors originating either in the dura mater, pia mater, or cranial bones.

Symptoms.—The onset of the disease is usually manifested by prodromic symptoms, and the most prominent, perhaps, is persistent headache, which does not yield to ordinary remedies. Vertigo; sleeplessness; vomiting; neuralgia in the limbs; disturbances of the intellect (confusion of ideas, impairment of memory, dulness, stupidity, etc.); attacks of unconsciousness (transient); convulsions; impairment or loss of special senses (vision and hearing); hemiplegia.

Treatment.—Antisyphilitic remedies; mercury and iodide of potassium, and these must be administered in quantities sufficient to control the symptoms. The quantity necessary to accomplish the desired effect is very variable; as much as one drachm, three times a day, of the iodide being required in some cases to produce any benefit whatever. The propriety of the prolonged use of the iodide in such excessively large doses, say for several weeks or months, has been strongly questioned because of the liability of doing permanent damage to the kidneys. Fortunately the necessity for excessively large doses during a prolonged period is not common.

PARALYSIS AGITANS.

Synonyms.—Shaking palsy; Parkinson's disease; the trembles.

Definition.—A chronic disorder, characterized by trembling of the limbs independently of voluntary movements, and associated with loss of power.

Etiology.—Chiefly a disease of advanced life. Violent emotion; prolonged anxiety or grief; over-exertion; exhausting diseases; exposure to cold and dampness (?). Whether of spinal or cerebral origin cannot be stated positively.

Symptoms.—Onset may be gradual or sudden. Feeble, rapidly recurring, rhythmical tremors; usually beginning in the fingers or hands, they gradually extend to the upper, and later to the lower extremities; the muscles of the face, of articulation (speech interrupted or stammering), of the head, and sometimes the trunk, may become involved. Facial expression frequently that of surprise. Staring eyes. Electrical excitability unimpaired. The attacks at first are transitory, but eventually the tremor becomes continuous; the trembling ceases or diminishes during sleep. Tremor may be entirely absent. Trembling movements exaggerated under emotional excitement or entirely cease. Neuralgic or rheumatic pains may precede the attacks. Rigidity of the muscles and cramps usually occur late in the disease; indescribable malaise; the head nearly immovable frequently; neck rigid; trunk bent forward, elbows separated from the trunk; forearms, hands, and fingers slightly flexed; knock-knees; feet in position of talipes equinus.

Differential Diagnosis.—From multiple sclerosis; from chorea; from senile trembling; from mercurial tremor; from alcoholic tremor.

Treatment.—Is very unsatisfactory. Improve the general health; sponge baths; cold packs. Carbonate of iron; chloride of barium; hyoscyamus; fluid extract of gelsemium (gtt. x. t. i. d.); quinia occasionally; physostigmin; lactophosphate of lime with arsenic; strychnia; phosphorus; zinc; potassium bromide; conium; belladonna; calabar bean; cannabis indica; arsenic hypodermically, have all been advocated.

PARALYSIS, FACIAL.

Synonyms.—Bell's palsy; histrionic paralysis; mimetic paralysis.

Definition.—Paralysis of the facial nerve, which may be unilateral or bilateral.

Etiology.—May be due to central causes, such as diseases at the base of the brain (tumors, hemorrhages, etc.); may be caused by suppuration or hemorrhage in the interior of the auditory apparatus (caries of the temporal bone, hemorrhage from blows upon the ear, etc.); may occur in the course of a suppurative inflammation of the middle ear; may follow exposure of the side of the face to cold; may originate in rheumatic influences (?); may be caused by traumatism, syphilis, and diphtheria.

Symptoms.—The condition is usually easily recognized, especially when unilateral. When developed, the eye of the affected side remains open, winking is abolished, the cheek is flaccid, the wing of the nose is flattened, the corner of the mouth is lowered, saliva dribbles, fluids escape from the mouth, the patient cannot whistle, facial expression is destroyed, the side of the face is drawn towards the sound side, the wrinkles in the forehead and the labio-nasal fold are effaced, food lodges between the cheek and teeth, the eye weeps, articulation is interfered with, and whistling, blowing, sucking, or expectorating are impossible or only imperfectly performed. Every effort at talking or laughing renders the deformity more conspicuous.

Is the lesion that produces the paralysis central or peripheral?

When of central origin, the occipito-frontalis and the obicularis palpebrarum muscles are very rarely involved. The wrinkles in the forehead are not effaced, and the patient can close the eye. In most instances, the paralysis affects only those muscles supplied by the inferior branches of the facial nerve. Reflex and electro-muscular contractility are preserved. Deviation of the tongue commonly exists (raise the angle of the mouth on the paralyzed side while making this examination in order to avoid an apparent deflection).

When the paralysis is of peripheral origin, there is loss of *expansion of the* nostril upon the affected side; usually the

taste is affected in the anterior third of the tongue upon the same side; the corner of the mouth is lowered, the eyelid droops, the labio-nasal fold especially is effaced, and the wrinkles in the forehead are obliterated upon the affected side. The soft palate is often flaccid, and drawn to the opposite side. The reflex and electro-muscular excitability are lost. The uvula may be deflected in either direction, as it is in health.

Treatment.—The etiology furnishes indications for treatment. Besides, electricity should be employed as in other forms of paralysis; the galvanic or faradic current, or both, or alternating, strong and feeble currents, etc., applied in accordance with established rules governing the use of this agent; short being preferable to long applications and currents of only sufficient strength to produce muscular contractions yielding more favorable results than stronger ones.

Support the muscles of the cheek by mechanical means. The time-honored silver wire suggested by Prof. Detmold, curved at one end and inserted into the angle of the mouth curved at the other end and carried over the ear; or to the wire in the mouth may be attached a piece of elastic tape which can be fastened around the ear. This simple mechanical device aids in the restoration of the functions of the paralyzed muscles, and of itself may be sufficient to effect a cure.

PARALYSIS, GLOSSO-LABIO-LARYNGEAL.

Synonyms.—Chronic bulbar paralysis; progressive muscular paralysis of the tongue, soft palate, and lips; progressive atrophic bulbar paralysis; paralysis of the bulbar nuclei.

Definition.—A disease due to degenerative changes affecting the nuclei of origin of the bulbar nerves in the medulla oblongata.

Etiology.—Is obscure. Often co-exists with progressive muscular atrophy. More frequent in men than in women; *accurs in* advanced life, rarely before forty.

Symptoms.—Onset is insidious. Occipital headache; *giddiness;* choking sensation on attempting to swallow; *difficulty* in carrying food from the mouth to the pharynx;

regurgitation of liquids; diminished control over the lips; the voice becomes nasal and indistinct, from inability to pronounce labials and dentals; atrophy of the tongue (late symptom); food collects about the teeth and cheeks; saliva dribbles from the mouth; taste unimpaired, impaired, or absent; progressive difficulty in swallowing; the lower muscles of the face and lips become paralyzed and trembling; mouth elongated, lips somewhat separated and fixed. The paralysis extends to the pharyngeal and respiratory muscles, causing loss of voice, dyspnœa with suffocative attacks which may result in suden death; the heart becomes excited, irregular, and weak; the strength rapidly declines from inability to swallow. Hunger is constant and digestion unimpaired. The mind remains clear. Progressive muscular atrophy may ensue from extension of the disease to the cord. Electro-muscular contractility may be normal or abolished.

Complications.—Progressive muscular atrophy; pneumonia.

Differential Diagnosis.—From double facial paralysis; from embolism or thrombosis of vertebral arteries; from tumors or hemorrhage in the medulla; from hysteria; from insanity; from disseminated sclerosis; from tumors and circumscribed inflammatory processes at the base of the brain.

Treatment.—Electricity (general faradization); counter-irritation to the nucha. Of internal remedies, chloride of gold, bichloride of mercury, potassium iodide, ergot, silver nitrate, and belladonna may be tried. Careful alimentation by œsophageal tube and per rectum. Mental excitement or over-exertion, and all excesses must be carefully avoided from the beginning. Such remedies as aid in maintaining nutrition at its highest point. One case of cure under the daily use of baths has been reported (Heller of Teplitz).

PARALYSIS, PSEUDO-HYPERTROPHIC SPINAL.

Synonyms.—Pseudo-hypertrophic progressive muscular atrophy; Duchenne's paralysis; progressive muscular sclerosis; *atrophia musculorum* lipomatosa.

Definition.—*A* form of paralysis attended with abnor

mal increase in the size of certain muscles and diminution or loss of power. It is still a question whether the changes which have been observed in the spinal cord are primary or secondary to the changes in the muscles.

Etiology.—Obscure. Heredity (?). The disease is almost exclusively confined to childhood and the male sex. Some believe that it is closely allied to progressive muscular atrophy.

Symptoms.—The muscles of the lower limbs (gastrocnemii and glutei) are usually first affected; muscular weakness; awkward swaying gait; the patient walks with his legs widely separated; the paralysis extends upward to the back, trunk, and arms, sometimes the face; the affected muscles rapidly augment in volume; the position in standing is characteristic—patient stands with legs widely separated, shoulders thrown backward, abdomen protruded and lumbar curve of the spine exaggerated; difficulty in rising from a sitting posture; frequently, the soles of the feet are drawn toward each other (talipes equinus) and there is a claw-like deformity of the toes; atrophy of the muscles of the upper part of the body may ensue, contrasting strongly with the hypertrophy of the lower part: in advanced cases the patient lies in a completely helpless condition; the previously hypertrophied muscles may undergo atrophy. The functions of the bladder and rectum remain unimpaired. Death from asthenia, implication of respiratory muscles, or some intercurrent disease.

Differential Diagnosis.—From true muscular hypertrophy; from spinal disease.

Treatment.—Affords little encouragement. Tonics; shampooing; kneading; cold douchings; electricity.

PAROTIDITIS (IDIOPATHIC).

Synonyms.—Mumps; parotitis.

Definition.—A contagious, self-limited disease, characterized by tumefaction of the parotid gland, with a tendency to metastasis to the breasts, uterus, ovaries, or labia majora in the female, and to the testicles in the male. It occurs epidemically.

Etiology.—Obscure. From stomatitis (?).

Predisposing Causes : Childhood: the presence of a num-

ber of children in one house. It may occur at any period of life; as a rule, it occurs only once in the same gland.

Symptoms.—Incubation varies from five to twenty-two days. Usually some slight premonitory chilliness, fever, malaise, headache, thirst, loss of appetite, rarely vomiting, during one to three days before the manifestation of local symptoms, though they may be simultaneous. Some authors say there is no premonitory stage. Temperature may reach 103–104° F., and the fever may continue during the attack or subside with the development of the local manifestations. Tenderness and swelling in the region of either or both parotid glands (usually double). The swelling begins below the external ear, fills the depression in that region, extends forward and upward upon the face and downward upon the neck. It is elastic; firmer over the centre. The skin may be intensely reddened, and desquamate after the subsidence of the swelling. Pain and tension, increased on opening the mouth during chewing and swallowing. Tenderness on pressure. Speech difficult; voice muffled. Salivation and impaired hearing in some cases. Rarely facial spasm; convulsions in children. The swelling reaches its height in from three to six days, remains stationary one or two days, then rapidly subsides. Often the opposite gland has meantime become affected, unless both were involved simultaneously. A hardness remains occasionally; abscesses form in rare cases, and may point externally or open into the external auditory canal. The submaxillary glands are sometimes attacked and neighboring lymphatic glands and tonsils often enlarged. Abundant perspiration occasionally at the time of convalescence.

Metastasis is liable to occur, especially in adults. The testicle is most frequently attacked—orchitis; effusion into tunica vaginalis; œdema of the scrotum. Both parotid and testicle may be involved at the same time or alternately in succession. The orchitis may lead to atrophy of the testicle. In females, the labia, mammæ, uterus, or ovaries may be attacked.

Complications and Sequelæ.—High fever; delirium; prostration; pneumonia; meningitis (very rare); atrophy of the testicle; epididymitis, with occlusion of the spermatic duct; erythematous inflammation of the mouth and pharynx.

Differential Diagnosis.—From swelling due to bad

teeth; from non-specific inflammation of the parotid; from inflammatory enlargement of the cervical lymphatic glands.

Treatment.—Confinement in-doors or in bed, if necessary. An aperient (saline) at the outset; bowels to be kept regular. Diet liquid, especially milk, beef-tea, and eggs.

Locally, fomentations; a covering of flannel or oakum or cotton-wool. If the skin be hot and dry, sponging with tepid water, and tincture of aconite internally. A leech or two may be applied. Abscesses must be opened. Any remaining hardness requires friction with oil or painting with tincture of iodine. If metastasis occur, the complication should be treated as though it occurred independently; sinapisms or blisters in the neighborhood of the parotid. Rest, fomentations, etc., for orchitis.

PAROTIDITIS (SYMPTOMATIC).

Synonym.—Parotid bubo.

Definition.—Inflammation of the parotid gland secondary to some other disease. It differs from the idiopathic form in the great tendency to suppuration; but resolution may occur.

Etiology.—Occurs as a complication or sequel of typhus and typhoid fevers, small-pox, measles, scarlatina, cholera, pyæmia, pneumonia, peritonitis, erysipelas, puerperal fever, etc.

Symptoms.—Are not marked at first. Fluctuation when suppuration occurs. The pus may be discharged externally or into the external auditory meatus, pharynx, mouth, lower part of neck or thorax. The general symptoms are of a low adynamic type.

Treatment.—Frequent poulticing; repeated fomentations; incision when suppuration appears. Stimulants and tonics internally.

PERITONITIS.

Synonym.—Inflammation of the peritoneum.

Definition.—An inflammatory disease of the peritoneum, which may be acute or chronic, local or general, primary or secondary. Acute peritonitis is sometimes remarkably latent.

Etiology.—Of primary peritonitis (rarely idiopathic;

Intense cold, or prolonged exposure to cold; severe or protracted counter-irritation over the abdomen, blows on the abdomen.

Of secondary peritonitis: Inflammation or perforation of contiguous organs, such as stomach, intestine, bladder, uterus, Fallopian tubes, ovaries, etc. It also occurs as an intercurrent malady in pyæmia, albuminuria, the eruptive fevers, Bright's disease, and the puerperal state.

Local or circumscribed peritonitis occurs in different situations, and receives such names as perihepatitis, perityphlitis, perisplenitis, etc.

Symptoms.—If primary, chill or rigors (not constant); fever, usually intense; severe local or general pain; tenderness on pressure; marked rigidity of the abdominal muscles; vomiting (sometimes a prominent symptom); tympanites. If from perforation, intense pain at the seat of the lesion, rapidly extending over the abdomen; slight fever; distention of the abdomen; prostration. If from extension of inflammation by contiguity, increase of pre-existing fever; pain and tenderness of the abdomen; nausea and vomiting. In all forms, as a rule, there is intense cutting, boring pain in the abdomen, aggravated by the slightest touch (diagnosis cannot be based on pain alone); tympanites; prostration; fever, with morning remission; breathing short, quick (eighteen to fifty or more), thoracic; dorsal decubitus, thighs flexed on the pelvis, shoulders elevated; abdominal muscles at first contracted, later relaxed. Percussion note over the abdomen is tympanitic, except in the dependent parts in the flanks and iliac fossæ, where it is dull; hepatic dulness lessened. Tongue red and slightly furred; anorexia; constipation; rarely diarrhœa; paralysis of the sphincter ani; strangury and vesical irritation (from extension of inflammation); urine scanty and high-colored, frequently retained; hiccough; pulse small, hard, cordy, 100–140; when collapse approaches, 160 200, and temperature sinks below normal; cyanosis; countenance anxious and pinched; eyes surrounded by livid circles. Surface becomes cold and clammy; skin wrinkled; cadaveric odor; voice husky. The mind may be clear, cloudy, delirious, or unconscious; Cheyne-Stokes respiration sometimes ushers in the fatal termination.

In peritonitis from perforation, the symptoms are developed suddenly and usually are violent. Frequently the

patient at once falls into collapse. *Persistent normal hepatic flatness* excludes perforation as the cause. It cannot be assumed, however, that tympanitic resonance over the hepatic region is always proof of perforation (distended colon, etc). Exploratory puncture (small trocar and canula) may be resorted to for the purpose of obtaining positive proof of the presence of gas in the peritoneal cavity.

Chronic peritonitis may follow the acute (rarely) or be due to tubercle (commonly). The latter form is usually (46 out of 48 cases) associated with tubercular deposits in the lungs or other organs; symptoms often vague and indefinite; tenderness upon pressure; colicky pains; rigidity of the abdominal walls; constipation alternating with diarrhœa; sometimes bilious vomiting; more or less rapid decline; daily chilliness and fever; dry skin; night-sweats; urine scanty and high-colored; abdomen enlarged and tympanitic (enlargement beginning in the lower part of the abdomen); tympanites permanent when the disease is established; ascites (sometimes the earliest prominent symptom); œdema of lower extremities, genitals, and abdominal walls.

Differential Diagnosis.—From hysteria; from myalgia of the abdominal muscles; from dermalgia of the abdominal integument; from cramp or colic; from sporadic cholera; from enteralgia; from enteritis; from other neuralgic affections of the abdomen; from passage of gallstones. In the acute form of the tubercular variety, from enteric fever.

Treatment.—Opium to secure entire relief from pain. Complete freedom from pain denotes arrest of peristaltic movements, a special result to be attained by treatment. Local or general blood-letting (of doubtful propriety). Purgatives are contra-indicated. If opium cannot be retained by the stomach, it may be given hypodermically or by enema. The opium should not be carried so far as to produce narcotism. Quinia in antipyretic dose, followed by frequent smaller doses. Diet to be liquid and cool or cold, in frequent and small doses. Nutrient enemata if the stomach is very irritable. When effusion occurs and the abdomen swells, warm applications; mustard plasters, *flying blisters*, or tincture of iodine; or iodine and oil, seven *to ten grains* to the ounce; nutrients and stimulants; *carbonate of* ammonium, gr. x., in ℥i. of the solution of the *acetate* every four hours; opium continued pro re nata

ment of all the general symptoms early, and soon afterwards a gradual subsidence of the tumor, as a rule. If suppuration is to take place, the patient towards the close of the second week (abscess may form earlier), will be worse instead of better. Rigor, sweating, high temperature, acceleration of pulse, abdominal pain and tympanites, and an increasing extent combined with diminished firmness of the abdominal tumor, are the chief signs which indicate the formation of pus." Suppuration may occur and the patient recover spontaneously. Abscesses may form which require treatment by operation.

Differential Diagnosis.—From typhlitis; from fæcal accumulation; from carcinoma.

Treatment.—Absolute rest, fomentations over the seat of pain and tenderness, opium to relieve pain. Leeches may be beneficial. The propriety of cathartic medicines is questionable, and yet there is good authority for administering a single purgative (castor oil, fluid extract of senna, calomel) in the beginning of the disease, simply for the purpose of emptying the bowels. Nothing is to be gained by the repetition of cathartics. Perforation of the cæcum or vermiform appendix with rapidly following general peritonitis, of course, preclude the use of purgatives. As soon as an abscess has formed, and pus may be sought for with an aspirator needle properly used, a surgical operation should be performed for its evacuation.

PHARYNGITIS.

Synonyms.—Pharyngeal catarrh; relaxed sore throat; cynanche pharyngea; angina simplex; clergyman's sore throat.

Definition.—A catarrhal inflammation of the mucous membrane of the pharynx and fauces. It may affect the upper or lower pharynx, and may be acute or chronic.

Etiology.—Simultaneous inflammation of the posterior nares; use of cigarettes; discharging smoke through nares; alcoholic excess. Is a concomitant of diphtheria, eruptive fevers, and inflammatory affections of the air passages.

Symptoms.—Mucous membrane red to reddish-brown, swollen, infiltrated; hemorrhagic extravasations may occur; projecting follicles; enlarged tonsils; orifices of Eustachian tubes distorted or obstructed; mucus glairy and tenacious

increased; at times mixed with pus or blood. In chronic cases, hyperplasia of mucous membrane, a string of muco-pus projecting into the lower pharynx, erosions and superficial ulcers.

Subjective feeling of stuffiness; headache, and pain in upper jaw. Breathing through nose difficult; difficulty of swallowing; voice thick and nasal. In chronic form, pain in the ear, impaired hearing; hawking.

Treatment.—Abstain from the habitual use of tobacco and alcohol. In the acute form, apply hot or cold cloths wet around the throat at night, covered with flannel; saline laxative mixture for two to three days; mucilaginous drinks; sucking of ice; steam inhalations; tepid or hot water gargle. In the chronic form add irrigation of cavity with post-nasal syringe with solution of chlorate or carbonate of sodium (one scruple in eight to twelve ounces). Insufflation of powders of tannin (one drachm) with iodoform (gr. x.); or of salts of zinc, copper, silver, iodoform, calomel, or bismuth, in varying strength. Don't promise too much. For a local application in chronic pharyngitis, the following: Ergotin, gr. xv., tincture of iodine, ʒ i., glycerin, ℥ i., mixed, and applied with a brush.

PHTHISIS PULMONALIS.

Synonyms.—Pulmonary consumption; chronic catarrhal pneumonia; cheesy pneumonia; pulmonary tuberculosis; pneumonic phthisis; chronic pneumonia; tuberculous pneumonia; interstitial pneumonia; fibroid degeneration of the lungs; knife-grinder's rot; filer's phthisis, etc.

Definition.—A chronic pulmonary disease; the anatomy of its lesions is not completely understood.

Etiology.—Inflammation, tubercle, or a combination of the two; heredity; age (twenty to thirty); malnutrition from any cause, especially in a person having an hereditary tendency to the disease; previous or existing diseases, such as measles, whooping cough, croup, typhus and typhoid fevers, scarlatina, bronchitis, pneumonia, pleurisy, naso-pharyngeal catarrh, laryngitis, etc.; diathesis; anti-hygienic influences; climatic agencies; infection (?); mechanical irritants (with various occupations); conditions of soil (moisture); the bacillus (?).

Symptoms.—The disease may follow quickly an attack

of acute lobular (catarrhal) pneumonia or the occurrence of a profuse hæmoptysis, and run a rapid course with well-marked symptoms, such as hectic fever with rapid loss of flesh and strength. Under such circumstances, physical examination reveals unmistakable evidence of lung consolidation. Constitutional symptoms precede the local ones in tubercular phthisis, and are fever, loss of flesh and strength, impairment and loss of appetite, hacking cough, etc.; then follows physical evidence of pulmonary consolidation.

In cases in which there are no active symptoms to mark the advent of the disease, the physical signs indicating incipient phthisis are all-important. Slight dulness upon percussion (perceptible, but perhaps minute diminution of natural resonance and in making the estimate the normal disparity between the two sides must be taken into consideration; percuss from the trachea, not toward it); weakened vesicular murmur (rhythm irregular); rude or broncho-vesicular respiration; prolonged expiration (high-pitched); increased vocal resonance, and vocal fremitus; increased bronchial whisper; moist râles (no matter how fine) produced in one portion of the lung (audible after coughing) which do not occur in any other part of the lung (circumscribed friction sounds); diminished expansion on inspiration in the infra- and supra-clavicular regions; perceptible sinking under the clavicle; abnormal transmission of heart-sounds ("available only in the central portion of the infra-clavicular region; if the *first* sound be better conducted on the right than on the left side, it is abnormal; and if the *second* sound be louder on the left side, it is abnormal."—F.).

Phthisis occasionally occurs without cough, but the cases are almost always complicated. Cough is one of the earliest and most constant symptoms. The pulse is almost invariably accelerated. Rise in temperature is a most important and constant symptom. Emaciation (may not be progressive). Careful attention to the above rational symptom and physical signs will enable the observer to reach a correct diagnosis at the most important period of the disease—namely, in the first or incipient stage. The physical signs after the disease has advanced pertain to pulmonary consolidation, cavities, bronchitis, and pleurisy.

Complications.—Ulceration of larynx and trachea; *bronchitis*; pneumonia; pleurisy; pulmonary œdema; *pneumothorax*; profuse pulmonary hemorrhages; syncope;

glandular enlargements; tubercular peritonitis; diarrhœa; ulceration of the intestines; fatty liver; amyloid liver (?); fistula in ano; Bright's disease; diabetes; pyelitis; tubercular meningitis; thrombosis of veins in the leg.

Treatment.—That introduced here will be simply for the relief of special symptoms. For the *fever*, antipyretic treatment, consisting in the use of quinia (a large dose one or two hours before the advent of the high temperature), digitalis.

For *night-sweats* (a part of the hectic), quinia; oxide of zinc, two to ten grains at bed-time; sulphate of atropia, one-eightieth to one-two hundredth of a grain, with or without small doses (one twentieth of a grain) of pilocarpine; sponging with *hot* water at bed-time; sage tea; white daisy tea; Dover's powder (five grains twice in the night); awaken the patient before the hour for sweating, and give him a bit of something to eat; mineral acids; muscarine.

PRESCRIPTION.

℞ Acid. tannic. .....gr. xxxi.
Pulv. digitalis.....gr. xv.
Ext. cinchonæ.....q. s.
M. Div. in pil. No. xx. S. One at bed-time.

For *diarrhœa*, opium, combined with mineral and vegetable astringents (iron, bismuth, lead, silver, catechu, gallic and tannnic acids).

PRESCRIPTIONS.

℞ Ext. coto. fid... .....♏ lx.
Tinct. cardamom. co.....♏ lx.
Misce et adde,
Mucil. acaciæ ..... ʒ iij.
Syr. simplicis... ..... ʒ ij.
Aquæ..... ....ad fl. ℥ vi.
M. S. Tablespoonful repeated two or three times.

℞ Bismuth. subnit. ..... ʒ i.
Morphiæ sulph ... .gr. i.
M. Div. in chart. No. xii. S. One every four, six, or eight hours.

℞ Resin terebinth..... ..grs. iij.
Argent. nitrat.,
Opii.....āā gr. ¼.
M. One pill.

Warm applications to the abdomen (turpentine stupes, etc). Small blisters to relieve severe pain.

For *cough*, especially if it prevent sleep, avoid opium if hyoscyamus, conium, belladonna, and the milder anodynes will suffice. Cough mixtures containing nauseating remedies should be avoided. Topical applications to the pharynx and larynx may allay irritation, and quiet the cough. If

it becomes necessary to use opium, give only such doses as are necessary to secure the needed rest.

PRESCRIPTIONS.

℞ Morphiæ sulph.....gr. iv.
Acid. hydrocyan. dil...gtt. lxiv.
Syr. pruni virg.....℥ iv.
M. Keep in a dark, well-stoppered bottle. S. Teaspoonful p. r. n.

℞ Iodoformi.....gr. x.
Ft. pil. No. xxx. S. One pill four or five times daily. For painful spasmodic cough.

℞ Morphiæ sulph.....gr. i.
Ammon. carbonat..gr. xxx.-xl.
Syr. pruni virg.,
Mist. glycyrrhiza co..āā fl. ʒ iv.
M. S. Teaspoonful in water.

℞ Borax.....2 parts
Salicylic acid.....2½ "
Hot water.....100-150 "
M. Inhale vapor from night to morning for five or ten minutes.

℞ Acid. hydrocyan. dil.,
Chloroformi.....āā ʒ i.
Tinct. hyoscyam.....ʒ ss.
Aquæ camph.....ad ℥ ij.
M. S. Teaspoonful in wineglass of water three or four times a day.

For vomiting, champagne or champagne cider with meals; hydrobromic acid, twenty to thirty drops in water, four times a day; feeding through a stomach tube; ether spray to the back of the neck just before meals; hypodermics of cold water over the epigastrium.

For dyspnœa, quebracho, drachm doses of the tincture; Hoffman's anodyne, with or without equal parts of U. S. solution of morphia; compound spirits of lavender.

For pain, due to circumscribed pleurisy, sinapisms, flying blisters, dry cups, anodyne plasters.

For stomatitis:

PRESCRIPTIONS.

℞ Quiniæ sulph.....gr. i.
Olei piperis nigris.....gtt. i.
Aquæ.....fl. ʒ i.
M. S. To be used as a gargle, or applied with a brush.

℞ Acid. salicylic.....gr. v.
Acid. tannic.....gr. v.
Sodæ bibor.....ʒ ss.
Potassæ chlorat.....ʒ i.
Sacchari albi.....ʒ ij.
M. Ft. pulvis. S. Apply a pinch on the tongue two or three times a day.

The hygienic is more important than the medicinal treatment, and pertains to clothing, change of climate, exercise, *bathing*, etc. Cod-liver oil, cream, iron, pancreatic emulsion, hypophosphites, alcohol, arsenic, etc., are to be considered. Impaired appetite and digestion are to be treated on general principles.

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PLAGUE.

Synonyms.—Pestis; pestilentia.

Definition.—A malignant fever, closely resembling typhus in its symptoms, but distinguished from it by the absence of any true rash and by the development of buboes and carbuncles.

Etiology.—Contagion or infection, which may be conveyed by the breath, fomites, and inoculation. One attack does not confer absolute protection against subsequent ones.

Predisposing Causes: Overcrowding and bad ventilation; lack of cleanliness; insufficient and unwholesome food; debility; warm and moist atmosphere; residence on marshy soil.

Symptoms.—Incubation very brief or absent; after inoculation, the lymphatic glands swell in four days. Invasion sudden; fever of low type and varying in intensity; rigors; restlessness; debility, headache and giddiness; muscular pains; nausea and vomiting; great thirst; diarrhœa with offensive stools; precordial oppression; facies heavy and stupid; respiration hurried; breath foul; eyes muddy and suffused. Temperature rises; prostration increases; tendency to syncope. Heart feeble; pulse frequent, weak, and irregular; tongue thickly furred, tending to become dry and brown or black; sordes. Urine diminished or suppressed, sometimes bloody. Hemorrhages from mucous membranes are not uncommon. Nervous symptoms—delirium, stupor, coma, convulsions. Death may ensue before local signs appear.

Locally, buboes of the glands of the groin, the axilla, and neck. They appear at different periods and are preceded by darting pains. Usually they form abscesses which discharge and heal slowly, leaving permanent scars. Carbuncles, mostly on the limbs, but may appear on any part of the body; they vary in number and size, and tend to become gangrenous. Petechiæ, vibices, and livid patches, and subsequent extravasations of blood in bad cases.

Differential Diagnosis.—From typhus.

Treatment.—Attention to hygiene. Bowels to be freely opened. An emetic at the outset (?). Nutritious food, stimulants, *mineral acids*, tonics. Antiseptics. Cold affusions *or sponging*. Poultices for buboes and carbuncles, *followed by antiseptic* dressings. (See also typhus fever.)

PLEURISY.

Synonym.—Pleuritis.

Definition.—Inflammation of the pleura; it may be primary or secondary.

Etiology.—Exposure to cold; pneumonia; bronchitis; pericarditis; pyæmia; abscesses; caries of a rib; rheumatism; gout; Bright's disease; cancer; diabetes; the eruptive fevers, etc.

Varieties.—Acute; subacute (sero-fibrinous); chronic or suppurative (empyema).

Acute Variety.

Symptoms.—Chilliness (in severe cases distinct chill); fever; sharp, stitch-like, cutting pain in the affected side (usually most marked under the nipple), increased by movement and respiration; short, dry, teasing cough; short, catching, shallow respiration (increased in frequency); hard, small, frequent pulse; nausea; sometimes vomiting. In ordinary cases, the temperature rarely rises above 100 or 102° F.

Physical Signs.—Diminished respiratory movement; grazing friction-ssounds and weakened respiratory sounds. The patient assumes a peculiar position, such as will prevent motion of the affected side. In the second stage (plastic exudation), the pain continues, and the physical signs are intensified. In the third stage (stage of effusion), absence of vocal fremitus, as a rule; flatness, and absence of respiratory sounds below the level of the fluid; absence of friction-sounds. As the fluid is absorbed the physical signs appear in reversed order.

Treatment.—Rest in bed. Blood-letting is admissible in a healthy subject. Strapping or elastic bandage to restrict movement. Opium, q. s. to relieve pain. Quinine to cinchonism promptly, and continued for three or four days. Saline diuretics. Bowels open. Tincture of aconite, gtt. ss.–i. every ten minutes for two hours, then at hourly intervals, as a sedative. Anodyne poultices. Blisters. *Iodine.* Nutritious, fluid food. The patient should remain *in his room or* in bed until the plastic or serous exudation is *absorbed.*

Subacute Variety.

Symptoms.—Usually mild in character. Chill (seldom); malaise; mild fever; pulse increased; dyspnœa (may be the first symptom complained of); loss of appetite; emaciation; vomiting; irritating cough. Pain is not a prominent symptom.

Physical Signs.—Diminished respiratory movements; vocal fremitus absent over effusion; fluctuation (rare); apex-beat of heart displaced; flatness and absence of respiratory sounds below the level of the fluid, exaggerated resonance above it, also bronchial respiration and bronchophony. Positive demonstration by puncture and withdrawal of fluid.

As the fluid disappears, the vocal and respiratory sounds gradually return, first manifested at the upper part of the pleural cavity.

Treatment.—Tonics and counter-irritation. Cathartics (?); diuretics (?); and diaphoretics (?). Increase nutrition. Aspiration. Syrup of the iodide of iron. Quinia. Bitter tonics. Blisters (?). Aspiration is resorted to early by some and only as a last resort by others. Aspirate at once if the quantity of liquid seriously embarrasses respiration. A favorable point to introduce the needle is in the fifth or sixth intercostal space at the junction of the axillary and infrascapular regions.

Chronic Variety or Empyema.

Synonyms.—Pyothorax; suppurative pleuritis.

Definition.—Pus in the pleural cavity.

Symptoms.—Essentially the same as in subacute pleurisy; a more marked constitutional disturbance as the disease advances; hectic fever, emaciation, etc.

Physical Signs.—Those which determine the presence of fluid in the pleural cavity. If the effusion is large, pulsation of side synchronously with contractions of heart (pulsating empyema). It may be impossible to decide whether the fluid is pus or not, except by puncture.

Treatment.—Tonics and nutritious diet. Aspiration. Free opening between the ribs and complete drainage. Excision of ribs with drainage. Free opening with "through" drainage. Irrigation of the cavity with carbolic acid, 1 in *100; or thymol,* 1 in 1,000; or sulphate of zinc, gr. ij. to the *ounce; compound* tincture of iodine, ʒ ss.-i. to the ounce of

water. Spontaneous perforation of the chest-wall may occur. Spontaneous perforation of the lung and discharge of the pus through the bronchi may occur.

Differential Diagnosis (of all varieties).—From pleurodynia; from pericarditis; from pneumonia and phthisis; from collapse of lung; from pulmonary cancer; from tumor developed within the pleural cavity; from aneurism of aorta; from enlargement of the spleen or liver.

PNEUMONIA, EMBOLIC.

Synonym.—Pneumonia from embolism.

Definition.—A circumscribed pneumonia with infarction of the lung, due to embolic blocking of a vessel.

Etiology.—Is implied in the definition. See also "Thrombosis and Embolism." If of pyæmic origin, metastatic abscesses occur. If the emboli come from the heart, there is a tendency to suppuration in the infarction and gangrene sometimes occurs.

Symptoms.—Sudden, severe, and sometimes paroxysmal dyspnœa; cyanosis; turbulent action of the heart; localized pleuritic pain. There may be muco-purulent or bloody expectoration.

Physical Signs.—Those which indicate consolidation within a circumscribed space.

Diagnosis.—Is difficult and uncertain; the existence of pyæmia or cardiac disease must be taken into account in making a diagnosis.

Treatment.—Expectant, supporting, and palliative.

PNEUMONIA, LOBAR.

Synonyms.—Acute pneumonia; croupous pneumonia; acute sthenic pneumonia; fibrinous pneumonia; pneumonic fever; lung fever.

Definition.—A disease in which one or more lobes of the lung are consolidated with morbid products in the air-vesicles and bronchioles. Is it an inflammatory affection or is it a general disease with a local manifestation?

Etiology.—*Predisposing* Causes: Age; male sex; poverty; overcrowding; occupations requiring exposure to sudden changes of temperature; out-door occupation &c.

feeble constitution; previous attacks; climatic influences; phthisical tendency; alcoholism.

Exciting Causes: Exposure to cold and wet; inhalation of irritants; foreign bodies, blood, or morbid exudations in the lungs; low fevers and blood diseases; pulmonary congestion; pericarditis; inflammation of abdominal organs.

Symptoms.—Catarrh and malaise (sometimes); chill or rigors; fever; temperature rises rapidly to 104° F., perhaps higher, and suddenly subsides (in a large proportion of cases) between the fifth and tenth days; vomiting; pain in the side (localized in the mammary region, but not constant); dyspnœa (not constant, nor in proportion to the amount of lung involved); cough (may be absent); clear, tenacious, and later rusty sputa; marked prostration; countenance flushed and anxious; often delirium, restlessness or stupor; convulsions (in children); typhoid symptoms in severe cases. Urine scanty, and may contain albumen in either stage.

Physical Signs.—*First Stage* (Stage of Congestion): Respiratory movements diminished. Vocal fremitus often increased. Slight dulness. Feeble respiratory murmur; crepitant râles (not always present).

Second Stage (Stage of Red Hepatization): Dulness on percussion; there may be flatness; vesiculo-tympanitic resonance over the unaffected lobe. Vocal fremitus and resonance increased. Bronchial respiration, bronchophony, and bronchophonic whisper. Bronchial râles may be heard.

Third Stage (Stage of Gray Hepatization or Resolution): At first the physical signs are the same as in the second stage. When resolution begins, the vocal fremitus becomes lessened; dulness diminishes; bronchial breathing gives place to broncho-vesicular breathing, and finally to normal respiratory murmur. Crepitant and subcrepitant râles (*râles redux*) and mucous râles are developed. Bronchophony changes into exaggerated vocal resonance, which, later, gives place to normal vocal resonance.

Complications.—Pleurisy; capillary bronchitis; emphysema; pericarditis; granular degeneration of the heart muscle; rheumatism; gout; slight jaundice; abscess and gangrene.

***Differential* Diagnosis.**—From pleurodynia; from intercostal neuralgia; from pleurisy; from pulmonary œdema; from hydrothorax; from phthisis; from bronchitis;

from cerebral disease (in children); from fever (in the aged and debilitated).

Treatment.—In uncomplicated cases occurring during the middle period of life and in otherwise healthy subjects the tendency to recovery is very strong, and the patient is almost certain to recover. Judicious treatment will save the lives of many patients, and may, even in mild cases, modify the course and duration of the disease. Acute pneumonia may abort spontaneously. There is evidence sufficient to justify the administration of quinine for the purpose of aborting the disease (twenty to forty grains a day). The weight of evidence, at the present time, is against general blood-letting. Local blood-letting is admissible in robust subjects (vigorous action of the heart, forcible pulse, etc.). General blood-letting is admissible when there is evidence that the heart is engorged, accompanied with pulmonary congestion and œdema.

Rest in bed; soothing doses of opium; opium in full doses at the onset of the disease and for the first three or four days only, afterwards with great care; opium contraindicated by symptoms of cyanosis and difficulty in expectoration; fomentations, anodyne poultices, rubefacients; antipyretic doses of quinine; cold baths, cold sponging, cold compresses applied to the chest, either to be used with great caution if at all; liquid nutritious diet; stimulants judiciously employed (alcoholics, carbonate of ammonia, etc.); digitalis if there is evidence of failure of heart-power. Keep the bowels soluble.

PNEUMONIA, LOBULAR.

Synonyms.—Broncho-pneumonia; catarrhal pneumonia; disseminated pneumonia; bronchitis with collapse of pulmonary lobules.

Definition.—Inflammation involving bronchi and the groups of air-vesicles belonging to them. The bronchi appear to be first affected. Hepatized lobules are found scattered through one or both lungs. It may be acute or chronic.

Etiology.—Occurs in connection with chronic bronchitis with or without emphysema, whooping cough, measles, scarlatina, diphtheria, influenza, rickets, scrofula; inhalation of irritants.

Predisposing Causes: Early childhood; old age; bad hygiene; humidity; exposure.

Symptoms.—These are usually obscured by those of the diseases by which it has been preceded. A chill rarely occurs. The temperature is elevated, and may reach within a few hours 105° F.; rapid, panting respiration; accelerated pulse; soreness beneath the sternum; hacking, painful cough; flushed countenance and anxious expression; expectoration rarely "rusty;" dyspnœa; cyanosis; no sudden decline in temperature as in lobar pneumonia; emaciation may be rapid. The primary symptoms are those of bronchitis.

Physical Signs.—Deficient respiratory movements; dulness marked, slight, or "patchy;" deficient vesicular murmur; moist bronchial râles, coarse or fine, few or abundant; increased vocal resonance and fremitus over the affected part. Broncho-vesicular or bronchial respiration. The disease usually involves both lungs. When it involves a large portion of lung-tissue and is accute, it cannot be distinguished by physical signs from lobar pneumonia.

Complications and Sequelæ.—Capillary bronchitis; laryngitis; pleuritis; atelectasis; emphysema; caseous pneumonia.

Differential Diagnosis.—From capillary bronchitis; from croupous pneumonia; from collapse of the lung; from acute tuberculosis; from œdema of the lungs.

Treatment.—Quinine to moderate the fever. Alcoholics to maintain the power of the heart's action. Sustain nutrition. Treat the bronchitis. Avoid antiphlogistics or depressing remedies. Vapor inhalations. Internal use of muriate of ammonia freely. Carbonate of ammonia. Stimulating emetics (apomorphia hypodermically) may be necessary to empty the bronchial tubes in children who cannot expectorate; sedative inhalations; dry cups may be admissible; mustard bath. For emaciation and during convalescence, chloride of calcium; tonics and iron; wine; cod-liver oil; change of climate.

PNEUMO-HYDROTHORAX.

Definition.—A collection of fluid and air in the pleural cavity.

Etiology.—See pneumothorax; empyema.

Symptoms and Signs, as in pneumothorax. Note besides: succussion sound is diagnostic; amphoric respiration; metallic tinkling (frequent); absence of vocal fremitus; displacement of heart; collateral congestion, etc.; distention of the side; loss of motion; tympanitic resonance in upper, flatness in lower part of the chest; line of flatness changes with patient's position; absence of vesicular breathing on the affected, and exaggerated on the healthy side.

Differential Diagnosis.—From emphysema; from chronic pleurisy; from diaphragmatic hernia.

Treatment.—An opiate to relieve pain. When dyspnœa is great, free drainage (?). For subsequent treatment see empyema. The treatment is palliative.

PNEUMOTHORAX.

Definition.—A collection of air or gas in the pleural sac.

Etiology.—Decomposition of pleuritic effusions (?); perforation from within outward (in case of phthisis and circumscribed pulmonary gangrene); rupture from enlarged air-vesicles in an emphysematous lung; rupture of stomach or œsophagus into the pleura. It occurs most frequently with phthisis. Traumatism (fracture of ribs; chest-wounds, rarely).

Symptoms.—Acute pain in the side; sudden and severe dyspnœa; lividity of the face and lips; great prostration (death may occur within a few hours); anxious countenance; clammy surface; palpitation of the heart; accelerated pulse. If there are pleuritic adhesions, the rational symptoms may not be marked. Its development with pulmonary phthisis may be insidious.

Physical Signs.—Diminished movement and enlargement of the affected side; tympanitic resonance; respiratory murmur feeble, amphoric, or absent; widening and bulging of intercostal spaces; apex-beat displaced. These signs are soon followed by those which indicate the presence of fluid *in the pleural cavity.*

Differential Diagnosis.—From hydrothorax.

Treatment.—An opiate to relieve pain. See pneumo-*hydrothorax.*

PURPURA.

nonym.—Morbus maculosis Werlhofii.

finition.—A disorder characterized by subcutaneous vasations of blood in various forms, sometimes asso- l with similar extravasations into the solid organs.

lology.—Obscure. Unfavorable hygienic conditions ficiency of proper food (?); intemperance (?); the acute ; syphilis; cancer; Bright's disease; cirrhosis of the icterus.

rieties.—Purpura simplex; purpura hæmorrhagica; ra rheumatica. In the first, the hæmorrages are con- to the skin; in the second, mucous surfaces, serous es, and the interior of organs suffer likewise; in the the joints are chiefly affected.

nptoms.—Various forms of extravasation in the minute points or stigmata, petechiæ, vibices, or sive ecchymoses; chiefly on the legs, often in succes- rops, each lasting a variable number of days. Pres- loes not affect them. Color bright-red at first, chang- ter into purple, violet, or almost black. The spots are y roundish, and well defined at first, later they ally fade into the surrounding tissue. Blebs contain- loody serum sometimes form under the cuticle; the nay become gangrenous.

norrhages from mucous surfaces: Epistaxis; bleeding ms and mouth; hæmatemesis; melæna; hæmaturia; ptysis; menorrhagia; rarely hemorrhage from the Extravasations may occur under the conjunctivæ; or th the mucous membrane of the palate, cheek, or Little blisters filled with bloody serum sometimes on the tongue or cheek. Stomatitis is absent.

eral symptoms (premonitory): General pains; languor; ty. (Actual): Pyrexia (sometimes of the hectic type); in the epigastrium, loins, chest and limbs; debility lepression; anæmia; tendency to syncope. Pulse , quick, compressible. Urine may be albuminous endently of the blood); casts are sometimes present.

nplications and Sequelæ.—Pulmonary or cere- *oplexy.*

erential Diagnosis.—From scurvy; from ecchy- *lue to injury;* from flea-bites; from typhus fever;

from black measles; from hæmophilia; from progressive pernicious anæmia; from leucocythemia; from cerebro-spinal meningitis; from ulcerative endocarditis with cutaneous emboli.

Treatment.—Improvement of hygiene; nutritious animal and vegetable diet; alcoholic stimulants in moderation. Rest in bed. If there is much plethora, a saline purgative at the outset. Tincture of chloride or muriate of iron in full doses; turpentine; tincture of larch bark; arsenic. Quinine may be combined with the iron; dilute sulphuric acid.

In the hemorrhagic form: gallic or tannic acid; ergot or subcutaneous injections of ergotin; acetate of lead. Also, local astringents, pressure, ice, or hot water. Bandaging of the legs or elastic stockings in chronic cases.

PUSTULE, MALIGNANT.

Synonym.—Charbon.

Definition.—A specific disease, special to the sheep, ox, and other animals, but communicable to man, and characterized by the formation of vesicles which become gangrenous and lead to blood-poisoning.

Etiology.—Direct inoculation with matter from animals suffering from "joint murrain," "black quarter," etc. It is believed that the poison may be absorbed by the unbroken skin. Flies and other insects have also been supposed to be carriers of it. Posssibly from eating the flesh of infected animals.

Symptoms.—A little redness at the inoculated spot (often the lip or other part of the face); a small vesicle forms, with itching and stinging sensation; surrounding tissues swell and become hard, brawny, and discolored, finally black and gangrenous-looking. The surrounding area is erysipelatous and shows secondary vesicles. Neighboring glands and absorbents inflame. Fetid odor; if the lip is affected, salivation and offensive breath. General symptoms of blood-poisoning—prostration, cold clammy sweats, weak and rapid pulse, hurried respiration, low delirium, etc. The majority of cases end fatally.

Treatment.—As early as possible, the affected spot should be completely excised and thoroughly cauterized by potassa fusa or the actual cautery. Local antiseptics after-

wards, such as carbolic acid solution. Hypodermic injections of the tincture of iodine around the border, with the external application and internal administration of the same. Patient to be kept in a well-ventilated apartment and to have abundant nourishment and alcoholic stimulants. Quinine, tincture of steel, mineral acids, and antiseptics internally. Solution of potassium chlorate as a drink. Phenic acid (?). Inoculation with attenuated virus (Pasteur) (?).

PYÆMIA—SEPTICÆMIA.

Definitions.—Pyæmia is "a febrile affection (in most cases acute) resulting in the formation of abscesses in the viscera and other parts."

Pyæmia is "a term applied to those cases in which infarctions, abscesses, and local inflammations exist."

Septicæmia is "a febrile affection (usually acute) in which symptoms similar to those present in pyæmia are developed, but in which the abscesses (metastatic), and other lesions do not exist."

Some writers regard the two conditions as only "different degrees of effect of the same poison."

Etiology.—Purulent or septic material in the circulation; or a chemical poison derived from pus and other matters in wounds; or microscopic organisms.

Pyæmia and septicæmia may occur in connection with wounds and surgical operations, suppurative disease of bones, endocarditis, phlebitis, abscesses or gangrene, various suppurative inflammations and ulcerations, dissection wounds, low forms of fever, the puerperal state, etc., etc.

Symptoms.—Initial chill (may be absent) or recurring chills or rigors, followed by profuse sweating, the skin dry and hot in the intervals; nausea and vomiting; temperature (usually) high (104 to 108° F.) with *irregular* exacerbations; the febrile movement may be moderate and be the only symptom; skin sallow or icterous; prostration and restlessness; signs of congestion and petechiæ, sometimes sudamina or a vesicular or pustular eruption; anorexia; thirst; tongue glazed or furred; sometimes fetid diarrhœa; pulse frequent, feeble, and variable; respiration hurried; breath often has a sweetish odor; frequently albuminuria; local lesions in various parts; joints in many cases painful and swollen; extreme prostration; face pale and pinched; heart's action extremely

rapid, weak, irregular, and intermittent; tongue brown and dry; sordes; delirium, coma, or convulsions; involuntary discharge of urine and fæces. Chills occurring at irregular intervals, accompanied by variations in temperature ranging through several degrees, are of diagnostic value. In some cases there is an intellectual calmness and brilliancy that continues to within a very short time before death. It is a remarkable, and at the same time, deceptive symptom.

Differential Diagnosis.—From various fevers and acute inflammatory affections; from ague.

Treatment.—Abundant nutrition; stimulants; tonics (mineral acids, bark, quinine, tincture of steel); antiseptics (internally; salicylate of soda, 150 grains daily); relief of local lesions and symptoms; quinine in doses of 1 to 5 grains hourly is a valuable remedy in the subacute and chronic cases. Prevention, by means of carbolic acid, in surgical, obstetrical, gynecological, and other cases, is of the greatest importance. Phenic acid (?).

PYLEPHLEBITIS, SUPPURATIVE.

Synonyms.—Suppurative inflammation of the portal vein; pylethrombosis.

Definition.—Suppuration occurring in the portal vein, involving the trunk of the vessel first, then its branches, and from these extending to the liver tissue, giving rise to numerous abscesses.

Etiology.—Ulceration in the various parts of the gastro-intestinal mucous membrane; suppuration of the mesenteric glands; suppurative inflammation of the bile-ducts; traumatism (there are cases on record in which fish-bones, and also one in which a piece of wire passed from the intestine into the portal vein and set up a suppurative inflammation); perityphlitis involving veins; external violence; may occur without discoverable cause.

Symptoms.—Those of the primary disease. Pain localized in the epigastric or hepatic region at first, subsequently the area may be extensive. Tenderness in the area of pain. *Rigors, followed* by febrile movement and profuse perspiration. The paroxysms of rigors and fever recur at irregular *intervals.* Temperature during the attack 105 to 106° F.; *in the intervals,* below normal. Liver enlarged and tender.

jaundice; spleen enlarged; usually profuse, fetid diarrhoea; abdomen distended and tender if peritonitis complicates; vomiting (of blood, not infrequently); debility; low-muttering delirium; typhoid state; coma; death. The disease lasts from one to six weeks. It is invariably fatal.

Treatment.—Is palliative merely.

RHEUMATISM, ACUTE.

Synonyms.—Rheumatic fever; acute rheumatic arthritis; polyarthritis rheumatica (?).

Definition.—An essential febrile disease with an inflammatory affection of the joints and other fibrous tissues. The arthritic manifestation has a tendency to migrate from joint to joint throughout the body.

Etiology.—The presence in the blood of some morbid material, generally believed to lactic acid. Suppression of the functions of the skin (?). Some disturbance of the nervous system (?).

Exciting causes: Sudden chill (importance as an etiological factor frequently overestimated); errors in diet (?); suppression of the menses (?); scarlatina (?); may be awakened by traumatism.

Predisposing causes: Heredity; age (15 to 30); previous attacks; temperate climate; ill health. The disease occurs only rarely in infancy or childhood, and generally for the first time in youth or early manhood.

Symptoms.—*Invasion:* Malaise for some time; chills or rigors followed by pyrexia.

Actual attack: General soreness and stiffness; restlessness and weariness; inability to move; marked perspiration (acid); sudamina frequent, sometimes in successive crops; fever—temperature 100° to 104° F. (may reach 112° and more) continues to rise after death. The ascent lasts about a week; stationary period of variable duration; defervescence gradual and indefinite (crisis rare). Pulse full and strong 90 to 110. Thirst; anorexia; constipation. Tongue coated with moist creamy fur; occasionally dry, brown, and fissured. Urine scanty and febrile, abounding in urates (brick-dust sediment); sometimes slightly albuminous. Sleeplessness due to pain; in exceptional cases, slight delirium. In some cases the symptoms tend to assume a typhoid character.

Locally, one or more joints are inflamed, usually in succession, sometimes simultaneously. Usually corresponding joints on the two sides are affected, either together or in quick succession. The inflamed joint is red, swollen, hot, tender, and painful, especially at night. The amount of enlargement varies; the skin sometimes pits on pressure. The disease may suddenly disappear from some joints and as suddenly appear in others. Relapses are frequent.

In the subacute form, pyrexia is slight, and one or more joints continue inflamed for a long time with slight change. General condition greatly lowered.

Complications and Sequelæ.—Pericarditis, endocarditis; bronchitis, pleurisy, pneumonia, rarely; embolism (quite rare); rarely peritonitis and cerebral and spinal meningitis; choreiform movements; ophthalmia; scleritis; iritis; skin eruptions.

Differential Diagnosis.—From gout; from other rheumatic affections; from synovitis; from erysipelas; from pyæmia; from trichinosis; from dengue ; from glanders.

Treatment.—Rest in bed between soft blankets; protection from draughts; flannel to be worn next the skin; joints, affected or not, to be wrapped in cotton-wool; chest to be similarly protected. Diet of milk and beef-tea at regular periods. Lemonade or barley-water freely as a drink; ice to be sucked. Wine or brandy if indicated. The disease has an intrinsic tendency to recovery. Treatment shortens its duration, and lessens the liability to cardiac complications. The alkaline treatment is most generally adopted. Render the urine alkaline in from twelve to twenty-four hours, and then maintain the alkalinity. Potassium or sodium bicarbonate, citrate, or tartrate, ʒ i.–ij. every three or four hour hours, combined with citric acid or lemon juice; or ℥ ss. or more of the potassium salt to a quart of barley-water as drink during the twenty four hours. Opium (solid), gr. ¼ to i. every three or four hours; or morphia subcutaneously. Salicin, salicylic acid, or salicylate of sodium, gr. xx.–xxx. every two or three hours. Salicylate of cinchonidia, gr. v. every two hours. The salicylic acid treatment should not supersede the alkaline. It has not been established that the salicylic acid prevents cardiac complications, except by way of shortening the duration of the rheumatic fever. The alkaline treatment does not exert a marked effect upon the duration of the disease, but the

evidence that it diminishes the liability to cardiac complications is overwhelming. The two plans do not conflict. Lemon juice taken freely. Ammonium bromide, gr. xv.–xx. every three or four hours. Quinine, 6 or 8 grains every four hours, alternating with iodide of potassium in doses of 15 grains. Hot air or vapor baths; hot blanket baths. For hyperpyrexia (temperature above 105° F.), cold bath; sponging the skin with cold or tepid water; quinine in large doses. Alcoholics, if there are evidences of asthenia or collapse.

Locally, anodyne and alkaline fomentations, or hot poultices containing opium or belladonna. Cold compresses (persistently used). Chloroform liniment. Tincture of aconite. Free blistering with liquor epispasticus (?). Strapping the joint with ammoniacum plaster. Hypodermics of two per cent carbolic acid solution in the neighborhood of the affected joint (?). Symptoms and complications require appropriate remedies. Much care is needed during convalescence. Quinine to prevent relapses.

PRESCRIPTIONS.

℞ Acid. salicylic ..... ʒ iij.
Sodii bicarb..... ʒ ij.
Glycerinæ,
Aquæ ..... āā ℥ ij.
M. S. A tablespoonful every two hours for the first day, then every four hours.

℞ Acidi salicyl..... ʒ i.
Spts. æth. nitrosi. .....fl. ʒ vi.
Sodii bicarb.....gr. lxx.
Spts. lavand. co.....fl. ʒ ij.
Aquæ..... ..... fl. ℥ ij.
Syr. aurant. cort. q. s. ut ft. ℥ vi.
M. Sig. One tablespoonful every three or four hours.

℞ Acid. salicylic..... ℥ ss.
Sodii bicarb.. ..... ʒ iij.
Syr. zingiberi . ..... ℥ ij.
Aquæ.... .....ad ℥ vi.
M. One drachm contains five grains of salicylic acid.

℞ Sod. (or pot.) carb.... . ʒ iv.–vi.
Tinct. opii..... ʒ i.
Glycerin..... ℥ ij.
Aq. rosæ..... ℥ ix.
M. Apply cloths saturated with this mixture to the affected joint.

℞ Lin. aconit ..... ʒ ij.
Lin. belladonnæ..... ʒ ij.
Glycerinæ ....ad ℥ ij.
M. Apply locally over the seat of pain.

RHEUMATISM, CHRONIC.

Synonym.—Chronic rheumatic arthritis (?).

Definition.—*An affection of the articulations, characterized by pain and stiffness, with some swelling, occurring*

chiefly after middle life, and influenced by atmospheric changes.

Etiology.—Advancing age; a preceding acute attack; exposure to cold and dampness; rheumatic diathesis.

Symptoms.—The fibrous structures of and around the joints become thickened and stiff; impaired movements; dull aching pain, increased at night. Anchylosis may ensue, with muscular atrophy. There is no tendency to pericarditis or endocarditis.

Differential Diagnosis.—From rheumatoid arthritis (rheumatic gout); from synovitis.

Treatment.—Flannel to be worn next the skin; exposure to be avoided; warm, vapor, hot-air, Turkish, cold, salt water, sulphur, or alkaline baths, general or local; douches; friction of the affected joints with some stimulating and anodyne liniment; massage; local counter-irritation; flying blisters; application of tincture of iodine; strapping of the affected joints with emplastrum ammoniaci, red plaster, or Burgundy pitch plaster; application of tincture of aconite or of veratria ointment; local galvanization. Internally, tonics—quinine, cod-liver oil, or tincture of iron; muriate of ammonium; potassium iodide with decoction of bark; lithium bromide; sulphur, guaiacum, sarsaparilla, colchicum, etc. Anodynes to relieve pain. Mineral waters. Diet nutritious and easily digestible. Alcoholic stimulants (moderately). Each therapeutical measure should be faithfully tested before it is relinquished for another.

PRESCRIPTIONS.

℞ Sulphur..... ʒ ij.
Potass. bitart..... ʒ i.
Guaiaci resin..... ʒ i.
Rhei rad..... ʒ ij.
Melis vel sacchari.....lb. i.
Myristicæ rasæ ..... No. i.
M. S. Half teaspoonful to a teaspoonful twice or three times a day.

℞ Potass. iodid.....ʒ iij.
Potass. acetat.....ʒ i
Tinct. hyoscyam... .....ʒ ss
Tinct. aconit. rad.....ʒ i
Vin. colchici... .....ʒ ss
Syr. simplicis.....ʒ i
Aquæ..... .....℥ ij.
M. S. Teaspoonful t. i. d. in water.

RHEUMATISM, GONORRHŒAL (MISNOMER).

Synonym.—Urethral rheumatism.

Definition.—A rheumatoid affection of the joints occurring with gonorrhœa (existence denied by some writers).

Etiology.—Gonorrhœa. Absorption into the blood of morbid matter from the urethral mucous membrane.

Symptoms.—Inflammation of some joint with pain, effusion and exudation; tension and swelling. The inflammation is liable to recur and lead to permanent changes in the affected joint; destruction of cartilages and anchylosis may ensue. The affection is likely to become chronic and be accompanied by constitutional disturbance. The local symptoms are those of synovitis as contrasted with a rheumatic affection.

Treatment.—Rest and fomentations. If the knee is affected, the limb should be extended on a splint. In the acute stage, Dover's powder, conjoined with the ordinary remedies for gonorrhœa. Afterwards, potassium iodide with tonics and stimulants. Friction, shampooing, and passive movements after subsidence of acute symptoms. Strapping might be useful. Free doses of the chloride of ammonium.

RICKETS.

Synonym.—Rachitis.

Definition.—A constitutional disease of early childhood, characterized by a peculiar lesion of the bones, manifested by crookedness of the long bones, and enlargement of their extremities, also crooked spine, prominent abdomen, large head, and enlargement of the liver and spleen, accompanied by general debility.

Etiology.—Improper feeding; prolonged suckling; too frequent suckling, and consequent derangement of assimilation; impaired health of the nursing mother; bad sanitary conditions; preceding debilitating diseases. Rickety or scrofulous parents. The disease rarely declares itself prior to the sixth month or later than the second year.

Symptoms.—The onset is insidious, and the premonitory symptoms not characteristic. Gastro-intestinal disturbance; some pyrexia; pulse quick and irritable; disposition becomes dull or peevish. The child may not attempt to walk, or cease to do so after it has commenced. Profuse sweating about the head, neck, and chest, especially during sleep; enlargement of the veins; general soreness and tenderness of the body; pain in the limbs; throwing of

the bedclothes at night. Urine copious, and abounding in calcareous salts and phosphates. Changes in the bones; ends enlarged and joints knobby; nodules at the junction of the ribs with their cartilages; limbs distorted or bent; spine curved; chest deformed (pigeon-breast). The head is large, with high, often projecting forehead; anterior fontanel remains open beyond the ordinary period, etc. The teeth appear very late. Emaciation; flabbiness of tissues; debility; helplessness; skin thick and opaque; development arrested.

Complications and Sequelæ.—Collapse and emphysema of the lungs; bronchial catarrh and bronchitis; pleurisy; chronic hydrocephalus; gastro-intestinal catarrh; laryngismus stridulus; convulsions.

Treatment.—Regular and proper feeding of the child. Milk mixed with one-fourth part of lime-water and some cream and sugar should be the principal article of diet. Asses' and goats' milk are useful. Very little farinaceous food. For older children, beef-tea in small quantities and milk puddings; later, some pounded meat or beef-juice, etc. Attention to hygiene. Sea air. The body should be washed twice a day with warm water; later, warm salt-water followed by friction. Straight wooden splints to the legs, extending beyond the feet. Abdomen to be supported by a bandage. Distortions to be corrected as far as possible. For the gastro-intestinal disorder, rhubarb with carbonate of soda, magnesia or chalk; an occasional dose of castor oil; lime-water. Pepsin, with dilute muriatic acid, in full doses. Cod-liver oil, one-half to one teaspoonful after meals; steel wine or other preparation of iron. Chalybeate waters. Quinine in some cases. Lacto-phosphate of calcium. Phosphorus in minute doses.

Inflammatory complications require supporting treatment; laryngismus stridulus and convulsions, tonics and warm baths with cold douchings. Bronchial catarrh should receive immediate attention.

ROSEOLA (RUBEOLA).

Synonyms.—Rötheln; rubeola notha; German measles; *hybrid* measles; hybrid scarlatina.

Definition.—A self-limited contagious eruptive disease, *running* a course similar to measles.

Etiology.—A specific contagion. Both adults and children may be attacked.

Symptoms.—*Incubation stage* usually lasts twelve days (may extend to twenty days). No symptoms.

Invasion stage: Slight shiverings; malaise; pain in body and limbs; pyrexia. Rarely, nausea, vomiting, diarrhœa. Sore throat (much milder than in scarlatina). Often catarrh as in measles, but milder. Temperature may rise to 103° F. or more. Conjunctivitis and photophobia. Tumefaction of the cervical and sub-occipital glands is sometimes the first symptom of the disease.

Eruption stage: Rash appears generally on the second day or within twenty-four hours (may be delayed until third or fourth day). It is proportionate to the severity of the attack, appears simultaneously over the body, but is less marked on the limbs; resembles that of measles; minute red papules which become grouped, but are less distinctly crescentic than those of measles. The color is brighter than in that disease, and deeper at the centre than at the periphery; disappears on pressure, and returns immediately afterwards. Patches sometimes coalesce. The eruption lasts longer than that of measles or scarlatina (four or five days; may continue for eight or ten days). Slight furfuraceous desquamation, general symptoms abate, sore throat may continue for several days.

Complications and sequelæ are generally absent. Slight, transient albuminuria. Rarely acute renal disease and dropsy.

Differential Diagnosis.—From measles; from scarlatina; from varioloid.

Treatment.—Rest in bed; liquid diet; an aperient, if necessary, with some simple saline mixture. For sore throat, warm milk-and-water gargle.

Note.—Roseola and rötheln are by some authors considered as distinct diseases.

SALIVATION.

Synonym.—Ptyalism.

Definition.—Salivation is a symptom, not an independent disease.

Etiology.—Local or reflex irritation; nervous affection

—insanity, hydrophobia, hysteria, paralysis, facial neuralgia; mercury; iodine; dentition, etc.

Symptom.—Excessive flow of saliva.

Treatment.—Treat the cause. Astringent mouth washes; opium in obstinate cases.

PRESCRIPTIONS.

℞ Spts. vini. rect.....1 part.
Aquæ.....4 parts.
M. For a mouth-wash.

℞ Aluminis.....ʒ i.
Dissolve in six ounces of water and add two ounces of brandy. For mouth wash.

℞ Tinct. myrrh.....ʒ i.
Aquæ.....℥ vi.
M. For mouth-wash

℞ Sodii borat.....ʒ ij
Pulv. myrrh.....ʒ i.
Aquæ.....℥ vi.
M. Mouth-wash or gargle.

SCARLATINA.

Synonym.—Scarlet fever

Definition.—An acute, self-limited, contagious disease, characterized by a peculiar eruption, soreness of the throat, and terminating in desquamation.

Etiology.—Infection. The disease chiefly attacks children. May be conveyed directly from the sick to the healthy by contact; may be conveyed by the atmosphere, animals, and clothing. As a rule, occurs only once. Spontaneous origin not established. Said by some to be conveyed by milk (?). Greatest danger of communication during desquamation. Whether or not it can be communicated by inoculation seems to be unsettled.

Predisposing causes: Anything that lowers the vital forces.

Varieties.—Scarlatina simplex, mitis, or benigna; scarlatina anginosa; scarlatina maligna; scarlatina sine eruptione; latent scarlatina.

Symptoms.—*Scarlatina simplex:* Incubation stage lasts from three to eight days (may vary from one to forty days). No symptoms beyond malaise and restlessness.

Invasion Stage (lasts from one to two days): Chilliness followed by pyrexia (temperature 104° F. or more). Skin hot and dry; face flushed; pulse frequent; throat sore; fauces red or dry. Vomiting and prostration, with thirst and anorexia. *Epistaxis* (frequently). Tongue coated, red at tip and edges; papillæ enlarged. Muscular pains; lassitude; severe frontal

headache; restlessness. Respiration hurried. Slight delirium at night. Convulsions or coma (in young children). Peculiar changes in the blood-globules (?).

Eruption stage (the distinguishing feature of the disease): Often ushered in by a transient convulsion in children. Scarlet rash during second day (may vary from twelfth hour to fourth day), on the roof of the mouth, the neck and upper part of the chest, spreading rapidly (twenty-four to thirty-six hours) over the face, trunk and limbs (may appear first on the legs). The rash begins as minute, bright-red pin-head spots (at first separated by natural skin), coalescing into patches, distinct in the flexures of joints. When confined to the face, diagnosis may be difficult. The color is usually bright scarlet, but the tint may vary; is generally more marked in the centre of each spot; disappears on pressure during the first forty-eight hours, to return after the pressure is removed. Spots are not at all or only slightly elevated as a rule. The rash is at its height about third to fifth day; begins to fade from fourth to sixth day, first from the oldest spots. It generally disappears before ninth or tenth day, when desquamation sets in. Desquamation lasts about two weeks. Sudamina are frequent, especially in adults, about neck, chest, axilla or groins. Skin dry and rough. Eyelids, hands, and feet often puffy. Subjective feeling of burning, itching, and tingling. Tongue thickly coated, peels off about fourth day, leaving papillæ elevated (strawberry tongue).

The throat is generally swelled, red, and œdematous; its surface dry or covered with viscid opaque mucus. Tonsils often slightly ulcerated or suppurating. Difficulty of swallowing. Submaxillary glands enlarged and tender. Subcutaneous tissue often œdematous. Conjunctivæ and mucosa of mouth and nose often red and inflamed.

The temperature usually rises until the rash reaches its height, then remains stationary, and subsides as the eruption fades. Ranges from 104° F. to 106° F., but may be higher. Slight morning remission.

Pulse frequent, often variable, may reach 120 to 160 or more, and falls with the temperature. Anorexia; thirst; constipation; headache; restlessness; nocturnal delirium.

Urine febrile, often albuminous and bloody; contains *renal epithelium*, perhaps casts.

Desquamation stage: More or less rapid subsidence of

symptoms; epidermis separates in variable amounts and periods, usually proportionate to the intensity of the rash and the number of sudamina. Pruritus. Pulse and temperature gradually fall, often below normal. Urine abundant and watery, albumen disappears; it contains renal and vesical epithelium, not infrequently renal casts. Throat and tonsils may remain inflamed for some time.

Scarlatina anginosa: Extensive and deep inflammation of the tissues of the throat; tonsils and uvula much swollen; tonsils may suppurate; tenacious secretion; often diphtheritic patches. Ulceration and gangrene which may involve the larynx or Eustachian tube and tympanum. Submaxillary glands and other structures of the neck swell and may suppurate or slough. Mouth opened with difficulty; examination painful; deglutition difficult and distressing. The nares are often similarly affected. Offensive breath. Rash delayed and less marked. Albuminuria and uræmia often present. Mouth and lips sore and cracked; tongue darker than in usual cases. General symptoms of a low type. Nausea, vomiting, diarrhœa, and tympanites. Temperature continues high after the rash has disappeared.

Scarlatina maligna: All the symptoms assume an adynamic or malignant character. Nervous symptoms prominent from the first. Prostration, restlessness, insomnia, muttering delirium, convulsions, coma, stupor; picking of the bed clothes and subsultus tendinum. Pulse feeble, small, rapid, irregular; circulation impeded. Petechiæ and hemorrhages may be present. Respiration hurried. Tongue dry or brown. Skin cold, or alternately hot and cold; clammy perspiration. Uræmia and albuminuria. Death may ensue before the rash has fully appeared.

Scarlatina sine eruptione: Fever and sore throat, but no eruption. More usual in second attacks.

Latent scarlatina: Absence of symptoms. Desquamation of cuticle; albuminuria and dropsy.

Complications and Sequelæ.—Acute desquamative nephritis. Dropsy without albuminuria. Uræmia. Ulceration of the throat. Rheumatoid affections of joints and muscles. Serous inflammations, pleurisy, pericarditis, endocarditis. Affections of the ear. Necrosis of bones, leading to meningitis, abscess of brain, facial paralysis. Abscesses in various parts, especially of lymphatic glands. Gangrene. Keratitis.

Differential Diagnosis.—From small-pox; from measles; from rubeola (roseola); from erythema.

Treatment.—Must be symptomatic. Isolation and ventilation. The blankets, sheets. and body linen should be frequently changed, and immediately immersed in a disinfectant fluid. For initial fever, tincture of aconite root, one-half to one drop every hour, according to age, in a teaspoonful of water. Hydrobromic acid, half a drachm to one drachm in simple syrup and water every hour. Bowels to be moved occasionally; saline mixtures; solution of potassium citrate or liquor ammoniæ acetatis. Barley water, lemonade, and iced water as drinks. Diet of milk and beef-tea. If the surface be pale, circulation feeble, and eruption tardy, tincture of belladonna, two to ten drops every two hours Skin to be sponged twice daily with lukewarm water, to which carbolic acid, Condy's fluid or camphor may be added; or wet pack The whole surface of the body may be rubbed with oil, grease, or vaseline. Carbolic acid and sulphites internally. After fever and rash have subsided, warm baths every other day, with thorough scrubbing with carbolized soap, followed with vaseline.

For throat symptoms, sucking ice or inhaling steam, gargling with hot milk and water. Heat and moisture externally around neck. For ulceration and gangrene, antiseptic gargles or local applications, such as carbolic and salicylic acids, one to forty or sixty; alum, two grains to the ounce of water; potassium chlorate, one scruple to the pint; Condy's fluid, one drachm to the pint; iodine, thirty drops to the pint; solution of chlorinated soda, 1 : 8 to 10; dilute hydrochloric acid, borate of soda, common salt. It may be necessary to touch the ulcers with silver nitrate. Nourishing food, tonics, and stimulants (port wine or brandy).

For active delirium in the eruptive stage, potassium or sodium bromide, chloral (if heart's action be good), morphia and quinia in combination.

If the nares are blocked up, irrigation with weak disinfectants or weak silver nitrate solution.

It is often necessary to give medicines and nutriment by the rectum.

Other symptoms and complications must be treated according to indications.

The renal affection requires special management; citrate *of potash, acetate* of potash, cream of tartar, in infusion of

digitalis; free dry cupping over loins; hot poultices, frequently changed, over the renal region; hot-air or vapor baths; purgation by elaterium or jalap and cream of tartar; large draughts of water or milk, milk and lime-water if stomach be irritable; digitalis locally over lumbar region; pilocarpine muriate hypodermically (five minims of a two-per-cent solution). After subsidence of acute symptoms, tincture of perchloride of iron, also quinia.

Extremely malignant cases can rarely be benefited by treatment. Give alcoholic stimulants. A hot mustard bath or cold-water affusions are recommended. Blisters to nape of neck. Stimulant enemata. Carbolic and salicylic acids, sodium benzoate, thymol, etc. Carbonate of ammonium.

PRESCRIPTIONS.

℞ Bismuthi subnit ..... ʒ i.-ij.
Acid. carbol. .....gr. ij.-viij.
Mucil. acac.,
Aquæ menth. pip.....āā ℥ i.
M. S. Teaspoonful every two to four hours. For diarrhœa and vomiting.

———

℞ Ext. bellad.....gr. i.-iij.
Aquæ cinnam..... ..... ℥ i.
Alcohol.....gtt. x.
M. S. Two or three times a day one drop for each year of the child's age, continued for two weeks or longer. Recommended as a prophylactic (?).

℞ Fl. ext. jaborandi... .....ʒ i.
Dose: One fl. ʒ in one fl. ℥ of thin starch water per enema every four hours. For dropsy.

———

℞ Tinct. iodinii.....ʒ ij.
Acid. carbolici.....ʒ i.
M. S. ½-1-2 drops every two to four hours in water. For irritable stomach.

———

℞ Potassæ permangan gr. v.-xx.
Aquæ .....O. i.
M. S. Gargle.

SCLEROSIS, CEREBRO-SPINAL.

Synonyms.—Multiple or insular sclerosis; disseminated sclerosis.

Definition.—A form of chronic myelitis and encephalitis, characterized by the formation of isolated patches or nodules of sclerotic tissue in the brain, pons, medulla, cerebellum, and spinal cord.

Etiology.—Obscure. Occurs usually between twenty and forty years of age, perhaps never after forty-five years of age; sudden and severe exposure to cold; prolonged action of damp and cold; traumatic influences (injuries to the head, concussion, etc.); as a sequel to cholera, variola, typhus, typhoid, etc.

Symptoms.—Vary with the size, number, and situation of the patches. The onset usually is gradual, and the initial symptoms not characteristic; in some cases mostly cerebral, in others chiefly spinal; headache; vertigo, mental disturbance; abnormal sensations in the limbs, muscular feebleness (paresis), ataxia, etc. The characteristic symptoms are: After incomplete paralysis of one or both upper or lower extremities, often associated with rigidity, rhythmical tremors occur, violent trembling on attempting voluntary movements, which may extend over the body, disappearing or scarcely noticeable during rest (not invariably present); slow, drawling, hesitating, "scanning" (every syllable pronounced separately and distinctly) speech, with aphonia or weak, monotonous voice; progressive weakness of sight; double vision or diplopia; nystagmus or oscillation of the eyeball; sometimes inequality of pupils; gyratory vertigo, either paroxysmal or continuous; muscular movements inco-ordinate; muscular atrophy is almost always a late symptom; tendon reflexes always present, usually much exaggerated; contraction of limbs; weakness of memory and intelligence; condition of childishness; fits of laughter and crying; melancholia: the face assumes a sad, weak, or silly expression; impaired mobility of the lips and tongue; the lips are pendulous and apart (bulbar paralysis); mania or dementia may occur; or apoplectiform attacks (infrequent) with hemiplegia; finally the patient becomes helpless, unable to speak or swallow; the sphincters relax; cystitis (vesical and rectal disturbances usually delayed until late in the disease); bed-sores; death from asthenia, apoplexy, or convulsions.

Complications.—Pneumonia; dysentery; diarrhœa.

Differential Diagnosis.—From paralysis agitans; from locomotor ataxia; from chorea minor.

Treatment.—Is unsatisfactory. Silver nitrate (especially recommended); arsenic; barium chloride; zinc phosphide; strychnia; belladonna; ergot; potassium bromide; galvanism; cold hydrotherapeutic applications; subcutaneous injections of arsenic. Improvement of general health; tonics; cod-liver oil. (See treatment for chronic myelitis.)

SCORBUTUS.

Synonym.—Scurvy.

Definition.—A disease arising from a deficiency of vegetable diet, and attended with a tendency to the occurrence of hemorrhages, profound impairment of nutrition, and great mental and bodily prostration.

Etiology.—The lack of fresh vegetable diet; insufficient food; bad hygiene; a diminution of the alkalinity of the blood, due to these causes (?).

Predisposing Causes: Advanced age; a cold or damp climate or season; exposure; fatigue; despondency.

Symptoms.—Onset gradual. Face sallow, of a dirty yellowish hue; eyelids puffy; anæmia; emaciation. Languor, debility; fatigue; shortness of breath; faintness; pains and soreness in the limbs; mental depression; a tendency to syncope. The skin is dry and rough, and often exhales a peculiar odor. Tongue flabby and indented. Gums swollen, turgid, and spongy; sometimes ulcerated and gangrenous, dropping off in masses; teeth tender and loose, sometimes dropping out; breath foul. Small purple petechial spots on the legs; irregular ecchymotic patches; brawny induration in the hams and calves; œdema of the feet and legs; desquamation of the cuticle; stiffness and pain in movement; constant aching in the legs. Disturbance of vision; tinnitus; vertigo; occasional delirium. In some cases, hemorrhages from mucous surfaces; occasionally unhealthy ulcers form. Restlessness; appetite often impaired; sometimes nausea and vomiting; constipation; rarely diarrhœa or dysentery. Temperature at times below the normal; pulse slow, weak, and small. Urine deficient and dark; blood and albumen are occasionally present.

Complications and Sequelæ.—Extravasations under the periosteum; swelling and detachment of the epiphyses of the long bones; dysentery; lobar pneumonia; pulmonary hemorrhagic infarctions; endocarditis, pericarditis, and pleuritis with bloody effusion; acute diffuse nephritis.

Differential Diagnosis.—From purpura.

Treatment.—Plent of fresh, soft, succulent vegetables, *with from* four to eight ounces of lime-water or lemon juice *daily*. Liquid nutritious food—beef-tea and milk—in considerable quantity. Meat as soon as patient can chew.

ounce of whiskey every four hours. After a few days, tonics —quinine with tincture of iron; sulphuric acid. The mouth must be frequently washed with some dilute antiseptic, such as Condy's fluid, followed later by a mild astringent—a solution of alum. Enemata for constipation; anodynes and astringents for diarrhœa; fomentations to painful swellings in the legs. Tincture of chloride of iron and ergot or turpentine for hemorrhages. Ulcers may be dressed with turpentine. (Condy's fluid, concent. sol. potass. permang.)

SEA-SICKNESS.

Definition.—A functional disease of the nervous system. (Beard.)

Etiology.—The older theories regarded it as essentially of gastric or hepatic or intestinal origin, or the result of disturbance of all the functions of the alimentary tract. Then followed the views that it depends upon cerebral anemia, reflex disturbances of the brain through the eyes, etc., etc.

It affects persons between fifteen and sixty-five years of age chiefly (children and old people may suffer from sea-sickness, but as a rule they do not). The same symptoms may be produced by riding in a railroad car, swinging, or even by riding in a carriage which swings or jolts excessively. It occurs among women in a larger proportion of cases than among men, and among the nervous and finely organized more frequently than among the strong and phlegmatic.

Symptoms.—Hunger with inability to eat (premonitory). Headache (similar to sick-headache; may be premonitory or may be the chief or only symptom developed); the pain may be intense, be attended by a sensation of constriction, and may extend down the neck, and also affect the back. Nausea without vomiting; vomiting; vertigo (sometimes an annoying symptom) without vomiting; constipation; diarrhœa (less frequent than constipation); many of the symptoms of nervous exhaustion, as flashes of heat, chilliness, flying neuralgic pains, mental depression (utter hopelessness); feeling of exhaustion (sometimes profound, and occurs *most frequently* among women); temporary suppression of the menses. The sensation of "goneness" at the pit of the stomach is a symptom from which many suffer, yet they are able to be up and about, but they tread t

border-line of misery, their pride is vanquished, they are almost limp, and can eat only very moderate quantities of food, even though they manage their stomachs very gingerly. Indigestion is a frequent attendant upon these cases, and one or two hours after eating (if not almost immediately) the patients are very liable to suffer from sour stomach, with offensive acid eructations.

A feeling of dizziness ("sea-legs") may continue for two or three days after landing, with loss of appetite and constipation. In exceptional cases, permanent impairment of health has been produced by sea-sickness. That sea-sickness is especially beneficial, in the sense that persons may be sent to sea for the purpose of being benefited by being made sea-sick, is a mistaken notion.

Treatment.—Mild bromization (a feeling of weakness in the limbs, dulness, tendency to sleep and fall to sleep easily at any time) by the use of bromide of sodium or potassium (the former being preferable). Thirty grains of the sodium in a tumbler of cold water three times a day for two days prior to going on board ship (this is the average length of time, but the *effect*, not the quantity or time, is the object desired), and continued two, three, or four days after sailing, or, if necessary, during the entire voyage. After the first symptoms of actual sea-sickness have developed, this remedy may be given (the patient maintaining the horizontal posture for some time), and in many cases it will act successfully. A single dose of sixty, eighty, or one hundred grains, well diluted, may subdue all the symptoms, so that the patient will be able to be about within a few hours, and is permissible *if the susceptibility to the action of the drug is known.* For the relief of actual sea-sickness, sulphate of atropia to the production of dryness of the throat (preferably administered hypodermically, beginning with $\frac{1}{200}$ of a grain, and increase) Minute doses of ipecac, combined with ammonium and sodium bromides, have been used for the same purpose.

For the headache, citrate of caffeine (very finely powdered) two grains every hour (dry on the tongue, washed down with a small quantity of water) until relief is obtained, or three or four doses have been taken. Cannabis indica has been used with some success for the same purpose. The usual dose is half a grain (conveniently given in pill). Nitrite of amyl (most conveniently taken from the pearls)

has been used with some success in the treatment of sea-sickness, and so also has the tincture of capsicum.

"Preparatory treatment" by means of cathartics (blue-pill, rhubarb, etc., etc.) should be avoided.

For the relief of the constipation, Seidlitz powders serve an excellent purpose

Alcoholics, such as brandy, wines, etc., etc., usually do more harm than good. In some mild cases, a glass of iced ginger-ale will so relieve the stomach that food can be taken and perhaps be retained.

If not practicable or desirable to take remedies, sea-sickness may be overcome, in a certain percentage of cases, by adopting one of two methods, perhaps a combination of both. Immediately upon the appearance of the peculiar sensation in the stomach go to bed, keep the horizontal posture, occasionally taking a bit of biscuit, or bread, or meat, not attempting to rise in the morning with a completely empty stomach, and after one, or two, or three days, the person will be able to go on deck, and pass the remainder of the voyage without discomfort. Or remain on deck from the beginning, and by free exercise become accustomed to the motion of the ship, and so overcome sea-sickness. In a very large percentage of cases, both of these methods will fail. Some imagine that sea-sickness can be overcome by a powerful effort of the will, but as a rule the human will comes out second best in this struggle.

SMALL-POX.

Synonym.—Variola.

Definition.—An eruptive disease, self-limited, spreading by contagion, characterized by an initial fever followed by a peculiar eruption which is succeeded by a secondary (suppurative) fever.

Etiology.—Contagion. May be communicated by means of the breath and exhalations from the skin; through the atmosphere; by clothing. No period of life is exempt, not even intrauterine. As a rule, it occurs only once. The virus must come in contact with an abrasion of the skin or a *mucous membrane in* order to cause the disease.

Symptoms.—*Incubation stage:* After inoculation, the *rst symptoms* appear in seven days. After infection, i

twelve days (may be a day or two longer or shorter). No definite symptoms but malaise.

Invasion stage: Sudden chills or rigors followed by pyrexia (primary fever), and profuse perspiration. The average duration of this stage is two or three days.

Temperature rises rapidly, may reach 104–106° F. or higher, with slight morning remission. Pulse usually full, not easily compressed, and sometimes bounding; in adults from 100–140; in children, to 160.

Uneasiness or pain in the epigastrium; nausea and vomiting with constipation; sometimes diarrhœa; pain over the body, especially severe in the middle of the back; debility; tremor of muscles; headache and sleeplessness or frightful dreams; flushed face; congested conjunctivæ; throbbing carotids. Dyspnœa. Coated tongue. Anorexia; incessant thirst. In some cases, restlessness, delirium, somnolence, stupor, coma, or convulsions. At times, sore throat and coryza. There is usually a marked subsidence of the initial symptoms when the next stage begins; in some cases the patient goes about during this interval.

Eruption stage: There may be a prodromal exanthem, either scarlatiniform or measly, rarely urticarial, from one to five days before the eruption appears.

The characteristic eruption appears generally during the third or beginning of the fourth day. It is at first usually maculated, and begins on the face or forehead; rarely about the wrists; spreads over the body and limbs in one or two days. The abundance of the eruption is important in giving a prognosis.

Character of the pock: It starts as a minute bright-red spot, slightly elevated, enlarging and raising until on the second or third day it forms a papule with flat top and hard to the touch; soon changes to a vesicle with clear thin fluid in the centre under the epidermis. From the third to the fifth day it becomes umbilicated, and the contents soon assume a purulent character at the periphery. An inflammatory circle surrounds each pock. The pus increases, umbilication disappears, and the pock becomes rounded or pointed. About the eighth or ninth day the pustule has matured, and retrograde metamorphosis begins, either by rupture or by shriveling and drying, forming a yellowish-brown scab which separates from the eleventh to the fourteenth day, leaving a reddish-brown stain persisting some time. If

the cutis is destroyed, a pit is left behind which ultimately becomes white.

The appearances and symptoms vary with the amount of the eruption. Tumefaction and puffiness of the scalp, face, neck, etc. Eyelids swollen, sometimes closed. Skin deep red and tender. Itching; peculiar odor. If the mucosa of the mouth and throat is involved, soreness, salivation, difficulty of swallowing. Discharge from nostrils, with blocking of nares. If the larynx, trachea, and bronchi are involved, hoarseness, cough, dyspnœa. If the uro-genital mucosa is involved, pain and soreness, painful micturition, hæmaturia. Diarrhœa is not uncommon.

The conjunctiva is often inflamed; photophobia, lachrymation. If a pustule forms on the eyeball, ulceration and destruction of the cornea may ensue.

The primary fever abates with the appearance of the eruption; secondary fever sets in with suppuration. It often begins with chill or rigors. Pulse frequent; thirst; dryness of tongue and mouth. Temperature rises to 104° or 105° F. Defervescence gradual. Desiccation may cause another elevation. Urine febrile, sometimes albuminous or bloody.

Varieties.—1. *Discrete.* Pocks distinct, not numerous. Symptoms moderate.

2. *Confluent.* Eruption abundant, pustules running together. Symptoms severe. Grave complications and sequelæ are liable to occur.

3. *Malignant.* Includes several forms. Patient may be attacked with severe primary fever with low symptoms and succumb to the poison before the eruption appears. Black or hemorrhagic form: intense debility and nervous prostration, delirium, restlessness, somnolence, or tendency to coma. Face sunken and anxious, breathing hurried. Eruption slow, irregular, or receding; livid or black in color; pustules contain blood. Petechiæ between pocks; hemorrhages from various parts. Petechial, ulcerative, and gangrenous forms are indicated by their names.

4. *Benigna, Verrucosa, Cornea, Horn-pock, or Wart-pock.* A mild, abortive form, in which the pocks do not become purulent, but shrivel and dry up on the fifth or sixth day. Absence of secondary fever. Generally follows vaccination.

Modifications of the disease:—

1. *Inoculated Small-pox.*—On the second day, a slight discoloration at the seat of inoculation; on the fourth or fifth day, the spot is inflamed and irritable, a vesicle forms which is surrounded by an inflamed areola about the seventh day; seventh to ninth day, primary fever; three to four days later, general eruption, the original vesicle meantime having become pustular and ripe, and retrogression commenced. The course is generally mild, though a grave form may ensue.

2. *Small-pox after vaccination, Varioloid.* — Eruption may be prevented or the number of pustules diminished. The course is shortened and the disease is mild, odor absent. There is little or no pitting.

Complications and Sequelæ.—Low forms of pneumonia, pleurisy, bronchitis, occasionally œdema glottidis; pericarditis, endocarditis; glossitis, gastritis, enteritis, profuse diarrhœa; local abscesses, phlegmonous tonsillitis and suppurative inflammation of glands; gangrene of scrotum or labia; erysipelas, ecthyma, rupia, eczema; pyæmia, septicæmia; ophthalmia, ulceration of the cornea, purulent otitis, with caries; destructive inflammation of the nose; cystitis; retention and subsequent incontinence of urine; renal congestion with albuminuria, abscess of the kidney; inflammation of the ovaries or testicles; hemorrhages—hæmaturia, menorrhagia, hæmoptysis, epistaxis, petechiæ; abortion; peritonitis in rare cases.

Differential Diagnosis.—From other eruptive fevers; from typhus and typhoid fevers; from measles; from scarlatina; from meningitis; from lichen; from secondary syphilitic eruption. A positive diagnosis can be made on the second or third day of the eruption, and there is but little danger of infection until the vesicles are fully formed. The suppurative stage is the most infectious period. It is possible for infection to take place during any period of the disease.

Treatment.—Isolation. Attention to hygiene, diet, and ventilation. Put the patient in a room with a temperature of 60° F. Disinfection. Administer such food as can be readily assimilated. Milk with cooling drinks, and later *beef-tea*, soups, jellies, eggs, and oysters may be added. *Frequent* sponging with lukewarm antiseptic water. Local *applications* to prevent pitting: anointing with carbolized *oil*; a mask of some unctuous material, so as to exclude the

air, such as glycerite of starch freely applied by a large brush several times a day. As the papules are about changing into vesicles, painting with tincture of iodine. Carbolic acid diluted with four times its weight of glycerin, applied as soon as pustules begins to fill and continued until they desquamate. The most effectual means, perhaps, for preventing pitting is to rupture each vesicle before it becomes a pustule, and apply a cold-water dressing. Touch each pimple with a point of lunar caustic to abort the vesicles; poultice for a week to avoid inflammation; apply collodion softened with glycerin to exclude the air and light.

Bowels to be kept open by mild laxative or simple enemata. Antipyretics; wet packs, sprinkling with cold water when the temperature ranges high. When secondary fever develops, quinine in five-grain doses, and potassium or sodium bromide for cerebral excitement. Morphine or opium to relieve painful sensations; also ice-bag to the head and spine.

Alcoholics during the suppurating stage, and for debility: quinine, iron, mineral acids with decoction of bark, carbonate of ammonia, camphor, tonics.

Treat the symptoms: for vomiting, hypodermics of morphia, iced carbonic-acid water. For diarrhœa, opium or other astringents. For headache and backache, hypodermics of morphia occasionally. For restlessness, sleeplessness, or delirium, potassium or sodium bromide and chloral, stimulants, warm bath. For tardy eruption, with elevated temperature, warm baths. For sore throat, mild gargles, sucking ice, currant jelly. For the mouth eruption, weak solution of potassium chlorate and carbolic acid. For hemorrhages, tincture of steel, tannic or gallic acid, turpentine, or ergot. For retention of urine, use the catheter. During desiccation, warm baths, and oiling the sufaces freely.

During convalescence, generous diet and tonics, cod-liver oil. As soon as feasible, warm baths with carbolic soap. Complications and sequelæ must be treated according to indications.

The only prophylactic is satisfactory vaccination and revaccination. In all cases this should be performed immediately when a person has been exposed to small-pox.

For disinfectant gargles, etc., see scarlatina.

SPLENITIS.

Synonym.—Inflammation of the spleen.

Etiology.—Idiopathic inflammation of the spleen is unknown; embolism; extension of inflammation from neighboring organs; direct injury.

Symptoms.—(May be absent.) In the acute affection, pain and soreness in the left hypochondrium; tenderness on pressure; later (with abscess), rigors followed by fever and sweats; emaciation; extreme debility; anorexia; occasional vomiting; diarrhœa; harassing, dry cough; hiccough.

Physical Signs.—Increase in the size of the left side through the hypochondrium; enlargement of area of splenic dulness.

Treatment.—Quinia freely; cinchonism to be maintained. Saline cathartics. Fomentations, turpentine stupes, and hot poultices over the left hypochondrium. Aspiration if fluctuation is detected. Supporting alimentation and stimulants.

Note.—Chronic enlargement of the spleen is generally secondary to some other disease and requires the treatment of the primary affection. Hydatids of the spleen present the same clinical history and require the same treatment as hydatids of the liver.

STOMACH, DILATATION OF THE.

Synonym.—Gastrectasia.

Definition.—An enlargement of the stomach usually induced by obstruction at the pyloric orifice.

Etiology.—Stenosis of the pylorus, caused by cancer, cicatrization of an ulcer, chronic inflammation, etc.; external pressure by tumors; degenerative changes of the muscular fibres of the organ; excessive indulgence in fluids; mechanical interference with the action of the gastric muscles due to adhesions, etc.

Symptoms.—If due to cancer, they are masked by those of the latter disease. The symptoms otherwise are those of *chronic gastric* catarrh or of dyspepsia, conjoined with pain *and rather* persistent vomiting, occurring at intervals of *several days;* vomiting of food partly chymified and partly

undergoing fermentation and putrefactive change, and great in amount. Regurgitation of partly digested food; eructation of offensive gases; impaired nutrition; bowels torpid; fæces dry; muscular cramps.

Physical Signs.—Abnormal prominence of the stomach on inspection; if empty, tympanitic, rather metallic resonance on percussion, extending from the sixth intercostal space to the umbilicus; if full, the sound is high-pitched and flat; succussion.

Treatment.—"Dry diet;" abstention from starchy, saccharine and fatty food; strychnia hypodermically in the epigastrium; or tincture of nux vomica and tincture of physostigma, gtt. x.-xx. of each three times a day before meals; galvanism applied to the epigastrium or over the pneumogastric; pepsin and muriatic acid; the sulphites, carbolic acid, etc., for fermentation; Carlsbad salts; silver nitrate. The stomach may require emptying by stomach pump or an active cathartic before treatment is commenced.

STOMACH, CANCER OF THE.

Synonym.—Carcinoma of the stomach.

Definition.—Cancer of the stomach may be simple carcinoma (scirrhus or fibroid), epithelioma, or the gelatinous or colloid form. It occurs in about 60 per cent at the pylorus, in 20 per cent at the lesser curvature, in 10 per cent at the cardia.

Etiology.—Age (45 to 60); predisposition and heredity.

Symptoms.—May be absent. May exist for only a short time before death. Dyspepsia, gradually increasing; pain in the epigastrium, increased by pressure and food, acute, burning or lancinating in character, or a feeling or soreness; the pain has not the paroxysmal character of that present with ulcer; it is sometimes lacking. Regurgitation of an acrid, acid liquid; loss of appetite; progressive emaciation. Vomiting (almost always present), most frequenly when the pylorus is involved, most rarely in cancer of the posterior wall; at first of glairy mucus in the morning, later after eating; the matters first consist of food, then of mucus, containing *sarcina, etc.*, in advanced cases of brownish, brownish-black or chocolate-colored masses of decomposed blood *Hæmatemesis;* salivation. Tongue red at the tip ar

pointed, usually glazed. Cancerous cachexia; hypertrophy of the peripheral lymphatic glands; fatigue; heart feeble; pulse small, weak, and rapid; skin thin, dry and harsh, fawn-colored; œdema of the ankles. A tumor may usually be detected by palpation; without this a probable diagnosis only is warrantable; cervical lymphatics often enlarged.

Complications.—Perforation and peritonitis; formation of fistulæ; serious, perhaps fatal hemorrhage; implication of other organs; tuberculosis of the lungs.

Differential Diagnosis.—From chronic gastric catarrh; from chronic gastric ulcer.

Treatment.—Is palliative. For the relief of pain, opium. Solid food to be withdrawn, diet of milk or buttermilk and beef-juice, supplemented by rectal alimentation; equal parts of carbolic acid and iodine, one or two drops in water three times a day. Fowler's solution, one or two drops three times a day. Codeia in one-grain doses. Opium.

STOMACH, ULCER OF THE.

Synonyms.—Gastric ulcer; peptic ulcer; digestive ulcer; ulcus ex digestione.

Definition.—A solution of continuity involving either the mucous membrane only, or with it one or more of the coats of the stomach, with a sharply defined margin which may or may not be thickened. As a rule, only a single ulcer exists.

Etiology.—Thrombosis and embolism; atheroma and endarteritis; abnormal acidity of the gastric juice; diminished alkalescence of the wall of the stomach; obstruction of portal circulation; hemorrhagic infiltration of a circumscribed portion of the wall of the stomach; tuberculosis, irritation of certain parts of the brain; the rapid healing of cutaneous ulcers (?). It occurs without known cause.

Predisposing causes: Female sex; age (18 to 30 and advanced life).

Symptoms.—In very acute cases, none: perforation is followed by prostration, intense pain, peritonitis, and death, as a rule, within two days. Usually the disease is chronic. Gnawing or boring pain, nearly constant, but varying in

intensity, increased by food, and referred to the xiphoid appendix, the left hypochondrium, the sixth intercostal space, or above the umbilicus; behind, in the region of the last dorsal or first lumbar vertebra, or under the angle of the scapula. The absence of pain is not sufficient to exclude ulceration. Tenderness, deep rather than superficial, on pressure. Irregular attacks of gastralgia, ceasing when the stomach is empty. Indigestion; vomiting (may be absent, often hæmatemesis), frequently when the stomach is empty; gastric catarrh; impaired nutrition; obstinate constipation.

Complications.—Amenorrhœa due to vicarious hæmatemesis (?); anæmia; perforation; tuberculosis.

Differential Diagnosis.—From chronic gastric catarrh; from gastralgia; from hepatic colic; from cancer; from chlorosis.

Treatment.—Nourish the patient and alleviate the symptoms. An exclusive milk diet, four ounces every three hours day and night during waking; lime-water may be added if not well borne. Leube's or Valentine's meat solution may be substituted if milk cannot be used. Rectal alimentation as an adjuvant or to give the stomach complete rest. Medicinally, Fowler's solution, one drop three times a day; oxide or nitrate of silver, gr. ss. three times a day; bismuth in gr. xv. doses; nitric acid issue over the epigastrium. If there be pain which cannot be controlled by the above means, opium may be used, but its administration is usually followed by the opium habit. After several weeks, rice, soft-boiled eggs, animal broths, etc., may be added to the diet; simple alimentation is requisite ever after. For hemorrhage, recumbency and absolute rest; ice to the epigastrium and pellets of ice to be swallowed; ergotin subcutaneously; fluid extract of ergot in drachm doses by the mouth; or solution of pernitrate or chloride of iron; or gallic acid in pill or powder or in combination with sulphuric acid. The propriety of introducing styptics into the stomach has been strongly doubted. To relieve the pain and irritability, and at the same time keep the bowels regular, use the second prescription.

If *perforation occur*, absolute rest for the stomach, *exclusive rectal alimentation*, and morphia hypodermically.

PRESCRIPTIONS.

℞ Acid. gallic ..... ʒ i.
Div. in pilulæ No. xii. S. One every hour at first, and then every two, three, or four hours for the hemorrhage.

℞ Bismuthi subnit.,
Magnes. carb.....āā gr. xv.
Liq. morph. hydrochlorat. ♏xv.
Aquæ.....ad ℥ i.
M. To relieve pain and irritability and at the same time keep the bowels regular.

℞ Argent nitrat.....gr v.
Opii.....gr. iiss.
M. et div. in pilulæ No. xx. S. One t. i. d. To relieve the pain and promote cicatrization of the ulcer.

℞ Ergotin..... 1 part
Aquæ.....10 parts
M. S. Fifteen drops hypodermically several times daily for the hemorrhage.

STOMATITIS.

Synonyms.—Thrush; white mouth; aphthæ; muguet; cancrum oris; noma; water canker. (Have also been used as names of varieties of stomatitis.)

Definition.—Inflammation of the buccal mucous membrane.

Forms.—Catarrhal or simple; follicular or papillary; aphthous or croupous; ulcerative or diphtheritic; parasitic; gangrenous; mercurial.

Etiology.—*Predisposing causes:* infancy; improper hygiene; erroneous or insufficient diet; unhealthy condition of the system or the presence of certain diseases.

Exciting causes: local irritation (lack of cleanliness, dentition, decayed teeth, undue heat or cold, smoking, wounds, etc.); catarrhal process involving mouth, œsophogus, and stomach; gastro-intestinal derangements; poisons in the blood (specific fevers, mercury); extension of inflammation from neighboring parts; contagion.

Symptoms.—*Simple or catarrhal* form: small, bright-red patches on inside of cheek or at the angles of the mouth which may extend and coalesce until the whole lining is involved. Swelling of the affected parts. Surface at first dry, later bathed in excessive secretion. Superficial erosions and ulcerations. Pain and soreness, heat, impaired taste. Offensive breath. Furred tongue, loss of appetite. Disordered bowels and flatulence; irritability and sleeplessness in children.

Follicular form: little red, raised, hard spots (enlarged

obstructed mucous follicles) which soften and burst, leaving small well-defined ulcers with red borders. Soreness.

Aphthous form (aphthæ): small, whitish or yellowish-white spots on inside of lips and cheek, palate, gums, tongue or fauces which may become confluent. Redness around each spot. They are vesicular and contain a fluid which becomes opaque, and finally rupture. Pain interfering with sucking, mastication, deglutition, and speech. Salivation. Offensive breath. Infants are feverish and restless, refuse nourishment, though thirsty. Tongue furred. Diarrhœa and vomiting may be present.

Ulcerative form (gingivitis ulcerosa): begins on lower gums, may extend backward or forward. Gums swollen, bleed easily. Patches of membranous-looking deposit, whitish, turning gray or even black; adherent at first, later soft and pulpy. Patches separate, leaving irregular ulcers which may spread and run together. Ulcers raised and shallow, surroundings œdematous.

Pain, increased by movement and irritation. Saliva abundant. Breath fetid. Neighboring glands usually enlarged.

Parasitic form (thrush, muguet): oidium albicans present. Patches of diffused redness with whitish points, which may extend and coalesce, resembling curdled milk. Pain and soreness; mouth hot and dry; saliva diminished.

In infants, there is slight fever with digestive disorders and irritation around anus. Is often associated with other diseases. In chronic affections is generally the sign of approaching death.

Gangrenous form (cancrum oris, noma, water canker): a dark-violet or purple spot appears on inside of cheek (generally the left), surmounted by a vesicle filled with bloody serum; softening and destruction of tissue, with widening excavations. Offensive odor; erosion of jaws; loosening of teeth; invasion of lips.

Onset is painless; progress rapid. Lips and cheek swollen and œdematous; sublingual and submaxillary glands enlarge; sanies and bloody saliva, etc., issue from mouth. Marbling of skin indicates outward extension. Auto-infection by absorption; nausea and vomiting; loss of appetite; fetid diarrhœa; rapid decline; small, weak pulse; low muttering delirium.

Mercurial form: gums red and tumefied, bleed easily.

Metallic taste. Salivation. Characteristic odor of breath. Superficial grayish sloughs and ulcerations along margins of teeth which become loose and fall out. Inflammation may spread and lead to extensive ulceration and even gangrene. Neighboring glands and structures swollen and painful.

Differential Diagnosis.—From syphilitic mucous patches; from diphtheria; from malignant ulcer.

Treatment.—Regulate hygiene and diet. Correct digestive disturbances. In *simple catarrhal* form aperients (castor oil, rhubarb with magnesia). Antacids (lime-water with milk, carbonate of sodium or magnesia, chalk). Avoid local irritation. In *follicular* forms, potassium chlorate solution as wash or with camel's-hair brush. Also demulcent washes (thin mucilage). Liquor potassæ permanganatis (U. S.) ʒ ss. to ʒ i. to ℥ v. or vi. of water to correct fetor. Astringents (alum in solution or powder, silver nitrate). In *aphthous, parasitic* form, local application of sodium salicylate solution, or of quinia sulphate solution (two to ten grains to the ounce of water) or carbolic and boracic acid solution (one to five grains to the ounce of water); sulphite of soda solution (one drachm in one ounce); vinegar and water; bromide of sodium with glycerin and water. Internal administration of quinia and salicylic acid; combination of bismuth and carbolic acid for gastric irritability; also potassium chlorate as above. In *ulcerative* form, cleanse the sores, and apply a little pure carbolic acid, or a crystal of sulphate of copper, or silver nitrate. If due to gastric disorder, treat the cause with bismuth, oxide of silver, Fowler's solution, hydrocyanic acid, etc. Potassium chlorate, two grains every two hours for adults; children in proportion, is often useful. In *mercurial* form, the drug must be withdrawn. Give potassium iodide. Local applications, in simple form, weak solution of sodium carbonate or potassium chlorate, tinct. of myrrh and water. In *gangrenous* form, supporting treatment and plenty of good air. Alcoholic stimulants. Quinia in full doses. Opium cautiously. Belladonna at early period. Destroy sloughing tissue and even some of the surrounding apparently healthy tissue by active caustics, Vienna paste, chromic acid, zinc chloride, nitric or hydrochloric acid, etc. Antiseptic mouth washes (chlorine, carbolic acid, carbolate of glycerin). Permanganate and chlorate of potassium

solution is useful. Poultices externally, sprinkled with antiseptics and changed frequently. Liquor potassæ permanganatis (U. S.) ʒ i. to ℥ v. or vi. of water as a local application.

PRESCRIPTIONS.

℞ Sodii bitrat ..... ʒ ij.
Myrrh. pulv ..... ʒ i.
Aquæ ..... ℥ vi.
M. S. Use as a mouth-wash or gargle in aphthæ.

℞ Tinct. myrrh ..... fl. ʒ ss.
Aquæ ..... fl. ℥ ij.
M. S. Use as a mouth-wash in thrush, muguet.

℞ Burnt alum,
Powdered starch or sugar or gum arabic, equal parts.
M. S. Apply to the ulcerated patches in aphthæ.

℞ Alum or powdered myrrh... ʒ i.
Aquæ ..... fl. ℥ vi.
Dissolve or macerate and add of brandy two ounces. To wash the mouth in salivation.

℞ Acid. salicyl.,
Acid. tannic ..... āā gr. v.
Sodii bibor. ... . ʒ ss.
Potassii chlor ..... ʒ i.
Sacchari albi ..... ʒ iv.
M. Fiat pulvis. S. Apply a pinch on the tongue four or five times a day.

SUN-STROKE.

Synonyms.—Insolation; thermic fever; heat fever.

Definition.—"A more or less sudden attack of unconsciousness, occurring in persons exposed, under adverse conditions, to high temperature."

Etiology.—Prolonged exposure to excessive heat, especially if the atmosphere contain moisture and impurities. It may occur in the night-time. The free use of alcoholic beverages, excessive fatigue, overcrowding, heavy and close-fitting garments (soldiers) predispose to the attack.

Symptoms.—*Prodromal:* Great heat and dryness of the skin (constant symptom); sense of exhaustion; thirst and nausea; vertigo; precordial oppression; frequent micturition; incontinence of urine (sometimes first symptom); restlessness and sleeplessness; sometimes delirium. Headache may be present, but is not a common symptom.

Actual: The sight grows dim; a rushing noise is heard in the ears; patient falls partially or entirely unconscious; sometimes a tremor or general convulsion passes over the body; *face pale; features* sunken; pupils contracted and unaffected by light; muscles relaxed; pulse feeble, sharp, and quick; *respiration* hurried and shallow. In some cases, the

face and surface are flushed or cyanosed; conjunctivæ injected; breathing rapid, noisy, and shallow, or labored and stertorous; pulse quick, sharp, feeble, or bounding; skin excessively dry and intensely hot; temperature 105 to 110° F. In severe cases, the patient drops unconscious in profound collapse with cold skin, etc., gasps a few times, shudders, and the heart stops.

Sequelæ.—Persistent headache; insanity; temporary hemiplegia; transitory delirium.

Differential Diagnosis.—From alcoholism; from opium narcosis; from cerebral hemorrhage, embolism, etc.

Treatment.—In *heat-exhaustion* (with feeble heart and pulse): Rest; stimulants—brandy, ℥ i.–ij., with tincture of opium, ♏xxx., per os or per rectum, or whiskey with gtt. xv. of tincture of digitalis hypodermically; or ammonium carbonate subcutaneously; restraint of dress to be removed; sponging with spirit and water if the skin is hot and dry.

In *heat-fever* (congested face, throbbing carotids, and stertorous breathing): Cold affusions; the wet pack; ice to the head; enemata of iced water; quinia subcutaneously; in some cases, venesection (?). If depression come on, whiskey or brandy; for convulsions and restlessness, inhalation of chloroform or morphia hypodermically (gr. ¼), or bromides.

Strip the patient, and douche with cold water; or wrap in wet blankets, and sprinkle with cold water; if skin is cold and clammy and respiration stertorous, the douche should be used cautiously, at most over the face and chest, and the patient supported with stimulants. If return of sensibility is delayed, blister to the nape of the neck; purgatives and enemata; ammonia, etc., occasionally to the nostrils.

TABES DORSALIS.

Synonyms.—Posterior spinal sclerosis; progressive locomotor ataxia; gray degeneration of the posterior columns; sclerosis of the posterior columns; posterior chronic leucomyelitis.

Definition.—A form of chronic myelitis involving the *posterior* columns and other parts in their immediate vicinity.

Etiology.—Inherited neuropathic constitution; sexual excesses; onanism; exposure to cold and dampness; concus-

sion (in railway employees); rheumatism (?); hysteria (?). May occur without known cause.

Predisposing Causes: Male sex; age (thirty to fifty, rare in children); occupations which render liable to bodily and mental over-exertion with exposure to wet and cold; typhus (?); intermittent (?); syphilis (?); diphtheria (?).

Symptoms.—Sharp, quick, lancinating pains (fulgurating) in the body, hips, thighs, and legs, at first occasionally, later paroxysmal and more frequent (vagrant, not in the course of nerve-trunks, in spots, irregularly paroxysmal, seat of pain painful to the slightest touch during the paroxysm); disorders of special senses—diplopia, impairment of vision, amaurosis; irregularity or contraction of pupils (tabetic pupils do not dilate in the shadow and contract in the light, as do normal pupils), strabismus, ptosis (three very important symptoms, yet disturbances of the optic apparatus may be entirely absent), derangement of speech (not common), impaired hearing; sexual appetite increased at first (may be impaired or lost early), later impaired; nocturnal emissions; impotence. Disturbances of the bladder sooner or later; retention of urine may be the first symptom. Diminution and abolition of patellar tendon-reflex and other reflexes (important in connection with paralysis of ocular muscles, condition of pupils, and the peculiar pains). After a period varying from a few months to several years, perverted sensations in the extremities—numbness, cutaneous and muscular anæsthesia (absent, or only moderate, early in the disease); a feeling of constriction around the body, thighs, and joints; the lancinating pains increase; delayed transmission and long continuance of sensations; the gait becomes unsteady, the limbs being moved unsteadily, irregularly, with a flinging motion, toes pointed outward, and heel brought to the ground with a stamp; walking in the dark is impossible; patient cannot stand with eyes closed; inability to feel the floor distinctly; existence and position of legs not known in the dark or in bed; electric excitability varies in different stages, may be increased or diminished or normal; cutaneous reflexes not constant; the use of a cane becomes necessary, later two are required, and walking eventually has to be abandoned. Resistance to passive motion may be good in the advanced stages. Subsequently the upper extremities are affected by the loss of co-ordinating power. Attacks of gastralgi

Appetite and nutrition remain good. Swelling of the joints, especially the larger (frequently before the ataxia is manifest), occurs in a number of cases. In some very advanced cases, paralysis and atrophy of the muscles may occur, and the patient perish from cystitis and bed-sores.

Complications.—Gastro-intestinal inflammation; cystitis; pyelonephritis; phthisis.

Differential Diagnosis.—In the early stage, from rheumatism or myalgia; from functional weakness of the spinal cord; later, from acute affections of the cord; from chronic myelitis; from multiple sclerosis; from spasmodic spinal paralysis (lateral sclerosis); from affections of the cerebellum; from chronic spinal meningitis; from progressive cerebral paralysis.

Treatment.—Absolute rest for weeks; maintenance of nutrition and invigoration of general health; coffee, tea, tobacco, and stimulants to be restricted; cold-water cure; electricity (galvanic current); nerve-stretching (?). Internally, nitrate of silver; lactophosphate of lime and cod-liver oil; iodide of potassium (?); phosphorus; arsenic; barium chloride, and many other remedies, but they have yielded negative results. Nitrate of silver has a recognized value in this disease, and may be given in $\frac{1}{6}$ to $\frac{1}{3}$ or $\frac{1}{2}$ of a grain three or four times a day until 60 or 80 grains have been taken, and then make an interval of two or three weeks. In this way it may be continued for a long time without producing discoloration of the skin. Relieve symptoms. Faradization of the bladder. Empty the bladder regularly and completely, with the catheter if need be, and irrigations. For the gastralgia, regulate the diet, and hypodermics of morphine during the attacks. Bromides camphor, hyoscyamus, etc., for sexual excitability. For the pains, dry cups, opium and belladonna plasters, electricity, chloroform and veratria liniments, cold or hot compresses, hypodermics of morphine, bromides, chloral, etc.

TABES DORSALIS, SPASMODIC.

Synonyms.—Spastic spinal paralysis; lateral spinal *sclerosis*; tetanoid pseudo-paraplegia.

Definition.—A chronic form of myelitis involving the *lateral* columns, and characterized by a gradually increasing *paresis* and paralysis.

Etiology.—Often obscure. The patients are usually strong and robust, and usually without predisposing influences. Most frequent between the ages of thirty and fifty; sexual excesses (?); exposure to cold and dampness (?); concussion (?); syphilis (?); traumatism (?).

Symptoms.—There may be transient prodromal sensory disturbances—pain in the back and legs; tingling, formication, etc.; weakness and heaviness of the limbs. Paresis beginning in the lower, rarely in the upper extremities, increasing very slowly; twitchings of muscles (at first single jerkings); muscular rigidity; rapid flexion of the foot or pressure on the toes induces tremor (reflex clonus); spastic gait (the legs drag, the tips of the feet find an obstacle in every inequality of the ground, each step is accompanied with a peculiar hopping elevation of the whole body, and the patient getting upon the toes slips forward, showing a tendency to fall forward); exaggerated reflex actions of tendons; functions of bladder, rectum, and sexual organs unimpaired; legs carried in a stiff manner; electric excitability of the muscles slightly diminished; absence of cerebral symptoms; atrophy of muscles does not occur for a very long time. In some cases, the symptoms appear only on one side of the body. Late in the disease the medulla may become affected, with respiratory and circulatory disturbances and speedy death.

Differential Diagnosis.—From posterior sclerosis (tabes dorsalis); from antero-lateral sclerosis; from multiple sclerosis, etc.; from cerebral hemiplegia.

Treatment.—See locomotor ataxia and chronic myelitis.

TETANUS.

Synonyms.—Lockjaw; trismus.

Definition.—A paroxysmal disease, characterized by a continuous tonic contraction of the voluntary muscles.

Etiology.—Occurs without assignable cause. Wounds and injuries of various kinds; exposure to cold and wet; epidemically; irritation and inflammation of the funis in the new-born (?); circumcision.

Symptoms.—*Pain*, twinges, and stiffness in the back of the neck; difficulty of swallowing and in speech; followed by rigid tonic spasm of the muscles of the jaw (trismus

and the spasm extends to the neck, chest, and limbs. The rigidity (may be like wood) extends until nearly all the voluntary muscles are involved, except those of the eyeballs, hands, and tongue; the muscles feel knotty, hard, and tense; the body may be curved backward (opisthotonos), rarely forward (emprosthotonos), very rarely laterally (pleurosthotonos), or rigidly extended in a perfectly straight line (orthotonos); painful spasms occur, first slight and at longer intervals, later more frequent and prolonged, being excited by the least disturbance; reflex irritability increased; risus sardonicus (mouth elongated, angles elevated); breathing arrested during the paroxysms; swallowing is often impossible; pain in the epigastrium, radiating toward the back; spasmodic priapism. The mind remains clear. Face anxious, distressed, and terror-stricken. Death usually occurs, either from interference with respiration or exhaustion, or both. Temperature often rises high before death and continues to ascend after death.

Differential Diagnosis.—From strychnia poisoning; from spinal and cerebro-spinal meningitis; from hysteria.

Treatment.—If due to traumatic causes, the irritating substance must be removed, cicatrices dissected out, or an injured nerve divided. Hydrate of chloral, gr. x., with bromide of potassium, gr. xv., every two hours, and, in addition, hypodermics of chloral, 15 to 30 grains. Potassium bromide, ʒ i.–ij. every four hours; curare hypodermically, gr. $\frac{1}{4}$, gradually increased; nicotia hypodermically; physostigmin; eserine subcutaneously, in increasing doses, commencing with gr. $\frac{1}{60}$; cannabis indica; opium in large doses; aconite; inhalation of chloroform; alcoholics to intoxication; belladonna; calabar bean; chloral; amyl nitrite; quinia in large doses; ice to the spine; vapor or hot-air baths. Absolute quietude; nutritious alimentation, stomach tube to be introduced through the nostrils if swallowing be impossible.

TETANY consists of paroxysms of tonic contractions of certain groups of muscles. The spasms are painful, always intermittent, and are usually limited to single muscular and nervous regions. The attacks frequently occur after the performance of certain movements. The muscles of the upper extremity are most frequently affected. In some instances, the muscles of the hands and fingers are so flexed that the hand resembles a paw; rarely the hand is ex

tremely extended. The course of the disease is irregular, and the treatment very varied.

TROMBOSIS AND EMBOLISM.

Definition.—Thrombosis is a coagulation of blood during life, either within the heart or a blood-vessel (artery, vein, capillary); the clot thus formed is a thrombus and may cause partial or complete obstruction. Embolism is the partial or entire plugging of a blood-vessel by a solid fragment (a portion of a softened thrombus, fragments of "vegetations"), or embolus, conveyed from some distant part. Incomplete occlusion may be made complete by the formation of a clot (thrombus) around the embolus after it has lodged.

Etiology.—*Thrombosis:* Slowing of the blood-current by various causes (compression, capillary obstruction, division and laceration of vessels); roughness of the internal coat of the vessels (atheroma, endarteritis, etc.); hyperinosis; dilatation of the vessels and heart; inflammation of the tissues around a vein.

Embolism: Vegetations from the heart; a foreign body introduced into a vessel; fragments of tumors which project into vessels; malarial fever (pigment emboli); emboli originating within the body are chiefly derived from a thrombus.

Symptoms.—Depend on the position of the embolus or thrombus, size and depth of the vessels, etc.

Of thrombosis: Are of comparatively slow development; if incomplete or there are sufficient collateral branches, may run its course without symptoms; otherwise, œdema (usually painless), painful when near nerves (phlegmasia dolens); inflammatory swelling; occasionally limited suppuration; hemorrhages; gangrene (slow death of the part supplied by the vessel).

Of embolism: When an embolus lodges in an artery of some size, the accession of symptoms is usually sudden, the patient feels a shock; when the cerebral arteries are involved, unconsciousness (not always), hemiplegia, coma; aphasia; when sufficient arterial anastomosis exists or is quickly established or the obstruction is incomplete, emboli may produce only slight effects; a large number of vessels may be obstructed at once (a mass of vegetations be swe

away) and kill the patient almost instantly; pain, paralysis, anæmic appearance, and lowered temperature in the part where the obstructed artery is situated; hemorrhages; gangrene; metastatic abscesses. If a large branch of the pulmonary artery is occluded, sudden sense of suffocation and dyspnœa. If the central artery of the retina is closed, sudden loss of vision. If one of the coronary arteries is plugged, pain and feeling of impending dissolution with retained consciousness.

Treatment.—When either of these conditions affect the extremities, rest in the recumbent posture should be enjoined; liquid nourishment; perhaps stimulants, carbonate of ammonia, gr. x., in a tablespoonful of solution of the acetate, three or four times a day, persistently employed; iodide of ammonia may be combined with the carbonate; or sodium phosphate, ʒ i., t. i. d., for many weeks; or liquor ammoniæ, ♏ x. in iced water every hour, with potassium iodide, gr. iij.–v. every alternate hour; digitalis. Locally, hot opiate or belladonna fomentations. Subsequently, tonics—iron, quinine; good diet; change of air. When large and important organs are involved, as the brain, the heart, the lungs, the liver, etc., the treatment must be conducted according to general principles and the varied conditions which may exist.

THROMBOSIS AND EMBOLISM, CEREBRAL.

The middle cerebral arteries are especially liable to be the seat of embolism (emboli have been found in nearly all the cerebral arteries).

Symptoms.—The premonitory symptoms are those of the primary disease. When an artery of considerable size is blocked by an embolus, the symptoms are sudden loss of consciousness (nearly constant), loss of voluntary motion upon one side of the body, most frequently the right (hemiplegia), and coma. Face cold; pulse and respiration slow. In other cases (more commonly) there is no loss of consciousness, and in still others no hemiplegia (the muscles upon one side of the face or of one arm or one leg alone being affected). In some cases there is simply loss of power of speech (aphasia). The movements of the tongue remain intact (?). According to the size of the artery involved, all these symptoms may vary in degree; that is, the loss of speech may be transitory,

the loss of voluntary motion may be incomplete, the patient may be able to speak, but with difficulty, etc. Stertorous breathing (frequently). Epileptiform convulsions (most frequently with thrombosis); convulsive movements of muscles (after embolism); temporary amelioration of paralysis and loss of speech (more frequent if the hemiplegia and aphasia are to be permanent). In some cases the mental faculties remain apparently unimpaired, save the loss of speech; in others the loss of memory is a marked symptom, and the patient lapses into imbecility. Embolism occurs most frequently in the left middle cerebral artery. Embolism occurs more frequently before than after forty-five years of age. The accession of symptoms in cerebral thrombosis is usually more gradual than in cerebral embolism. There is a great liability to the occurrence of other attacks. The heart should always be examined as an aid in differentiating between cerebral thrombosis, embolism, and hemorrhage.

Differential Diagnosis.—From cerebral hemorrhage.

Treatment.—Rest. Nutrition. Cooling drinks; cold to the head. Bowels open. Artificial warmth to the paralyzed limbs. The secondary phenomena, such as contractures, wasting of muscles, etc., may be benefited by friction, massage, electricity, etc. If there is evidence that the lesion in the brain is small, the affected muscles should receive special attention, so that they may be ready to act when the brain injury has been repaired.

THROMBOSIS OF THE CEREBRAL SINUSES (DURA MATER).

Etiology.—Venous stasis; traumatism; phlebitis (secondary to otorrhœa and caries of the petrous portion of the temporal bone); the puerperal state; erysipelas of the head and face; carbuncle of the upper lip or nose; malignant pustule of the lip; insanity; cachectic conditions; cholera infantum.

Symptoms.—Are not characteristic and the diagnosis is uncertain. There may be high fever with delirium or drowsiness. Rigidity of cervical muscles, sometimes general muscular rigidity; mental dulness; loss of hearing; stupor or coma; sometimes delirium; intermittent headache; vertigo; pain in the temporal region of the affected side; na

sea and vomiting; contractures or paresis; ulcerating keratitis has occurred; local tremor; clonic convulsions; epistaxis; puffiness of eyelids; swelling of facial and occipital veins; paralysis of facial and ocular muscles; exophthalmia; a painful, circumscribed œdema behind the ear; choked disk; strabismus; inequality of the pupils; neuralgia of the fourth and fifth nerves; typhoid symptoms. The first symptoms may be unconsciousness and hemiplegia; coma; convulsions. If the thrombus softens, a combination of the symptoms of meningitis and pyæmia is developed.

Treatment.—Relates to the disease upon which it depends. Otherwise symptomatic.

TONSILLITIS.

Synonyms.—Amygdalitis; cynanche tonsillaris; quinsy.

Definition.—A parenchymatous inflammation of one or both tonsils.

Etiology.—Affects chiefly young persons. Former attacks increase the liability to this affection. Anything that lowers general health. Syphilis. Intemperance. Taking cold. Exposure to sudden changes of temperature. Sometimes obscure.

Symptoms.—Febrile disturbance. Local uneasiness, pain, and tenderness. Throat feels dry. Difficult deglutition. Alteration of voice. Unpleasant breath. Salivation may be present. Deafness and noises in the ears (occasionally). Fauces and tonsils red, enlarged. White or yellowish spots or patches. Palate and uvula swollen. Neighboring glands often swollen and tender. Furred tongue. Rash may be present. Loss of appetite. Thirst. Constipation. Suppuration may ensue. Gangrene (rare). Chronic enlargement.

Differential Diagnosis.—From diphtheria; from scarlatina.

Treatment.—Tincture of aconite in small, frequent doses. Guaiacum (freely). Emetic of ipecac. Quinine (early 15 to 20, later 2 to 5 grs.); salicylate of soda (gr. x. to xv. every four hours); tincture of iron (minims xx.-xxx.), or *dilute* nitric acid with decoction of bark; either may be *given* t. i. d. or oftener. Calcium sulphide ($\frac{1}{10}$ gr. every *two hours*, $\frac{1}{4}$ to 1 gr. t. i. d.). Dover's powder or chloral at *night*.

Locally, steam inhalations; bicarbonate of sodium applied in powder repeatedly; gargles of hot water, simple or with a small quantity of liquor potassæ permanganatis. Ice; hot linseed meal poultices around front of neck; spirits of turpentine; fomentations. If pus form, puncture tonsils (must be done with care). During convalescence, tonics and astringent gargles. Excision is a favorite means of removing hypertrophied tonsils. The wire écraseur (Jarvis) is also recommended.

PRESCRIPTIONS.

℞ Potass. chloratis..... ʒ i.
Spt. ætheris nit..... ʒ iv.
Tinct. guaiaci,
Syr. aurant. cort .....āā ʒ vi.
M. S. A teaspoonful every two hours in a little water. (Diminish dose if bowels move too freely.)

———

℞ Acid. chromic.....gr. xx.
Aquæ destil..... ..... ℥ i.
M. Apply with brush. Acute Tonsillitis.

℞ Tinct. guaiaci,
Glycerinæ..... .. equal parts.
M. S. Teaspoonful every two or three hours, with external applications.

———

A single local application of nitrate of silver to the tonsils early (grs. xx. to ℥ i. of water) has been spoken of highly as an abortive.

TRICHINOSIS.

Synonyms.—Trichiniasis; trichinous disease.

Definition.—The morbid condition produced by the presence of the Trichina spiralis.

Etiology.—The eating of raw or imperfectly cooked trichinous meat.

Symptoms.—Sense of pressure and fulness in the epigastrium (may be preceded by a chill); impairment of appetite; nausea or vomiting; eructations; colicky pains; diarrhœa; depression; thirst; pulse quick and small. Later, various muscles become affected, are intensely painful, especially on exertion, tender, swollen, and hard; the joints are more or less flexed and rigid; there may be dyspnœa (frequently a prominent symptom), aphonia, trismus, difficulty of swallowing, etc., according to the muscles involved. Œdema of the face and limbs is a very constant symptom. The temperature sometimes rises as high as 106° F., and pulse to 120–140; clammy (usually profuse) perspiration and *sometimes sudamina*. In grave cases, the symptoms assume a *typhoid* character, often associated with bronchitis, *pneumonia*, and other inflammatory affections.

Differential Diagnosis.—From cholera; from ileo-colitis; from typhoid fever. Positive diagnosis can be reached by removing with the harpoon or knife a small portion of the painful muscle and finding trichinæ with the microscope.

Treatment.—Must be employed early. Glycerin, one part, to water, two parts; carbolic acid, either alone or mixed with tincture of iodine; benzine; cathartics; quinia freely. Later, the treatment is supporting and symptomatic merely. Prophylaxis is most important—all meats should be thoroughly cooked.

TUMORS, INTRACRANIAL.

Synonyms.—Cerebral tumors; tumors of the brain.

Forms.—Cancer; tubercle; syphilitic deposits; sarcoma; myxoma; glioma; cholesteatoma; psammoma; lipoma; parasitic cysts (cysticercus and hydatids); other cysts (serous, sebaceous, dermoid, etc.); aneurisms; vascular erectile tumors; osseous and calcareous masses.

Symptoms.—Vary with the situation, size, shape, number, and rapidity of growth. A tumor may exist in the brain and never give rise to symptoms. May exist for a long time without symptoms, and then suddenly develop severe symptoms, the case soon terminating fatally. Headache, apt to be persistent; vertigo; amaurosis; momentary loss of consciousness; tinnitus; formication or numbness in various parts of the body; hyperæsthesia, followed by blunted sensibility of the surface; mental irritability, followed by impairment or derangement of faculties; sometimes delirium and epileptiform convulsions; localized convulsions in peripheral muscles; cerebral vomiting; various paralyses or hemiplegia; aphasia (amnesic). The symptoms in some cases are intermittent. Localized convulsions and paralysis in peripheral parts. Choked disk or neuro-retinitis (frequently absent); localized headache; localized pain on percussion; these symptoms are believed to be characteristic of tumor in the motor zone of the hemispheres; temperature of the head elevated (not invarialy).

Differential Diagnosis.—From abscess of the brain; from thrombosis and embolism; from cerebral hemorrhage.

Treatment.—If syphilis be suspected, anti-syphilitics,

especially potassium iodide in gradually increasing doses, until a drachm three times a day is taken, but the excessively large doses should not be prolonged; bichloride of mercury and arsenic may be of use in some cases; fluid extract of ergot, ʒ i.-ij. four times a day for several weeks, in vascular neoplasms. Otherwise palliative and supporting.

TYPHLITIS.

Synonyms.—Inflammation of the cæcum; catarrh of the cæcum; typhlo-enteritis; cæcitis.

Definition.—Inflammation of the cæcum and its appendix, which may be acute or chronic.

Etiology.—Any of the causes which may produce intestinal catarrh; impossible to determine the cause in some cases.

Symptoms.—*Acute Variety:* Uneasiness, followed by pain and soreness in the right iliac region, extending along the ascending colon. Tenderness on palpation in the region just mentioned and above the crest of the ilium. The body is flexed and turned towards the right side; pain increases when the body is straightened. The bowel may be mapped out by palpation if distended with gas or fæcal matter. Constipation (daily evacuation o. the bowels in some cases). General malaise and slight feverishness (fever may be absent entirely); coated tongue; anorexia; nausea; often vomiting.

Subacute and Chronic Varieties (may follow the acute): Uneasiness about the ileo cæcal valve; flatus is felt passing the orifice; tendency to constipation; gaseous distention of the small intestine around the umbilicus may be present; distention of the cæcum and ascending colon with gas.

Differential Diagnosis.—From perityphlitis; from other obstruction of the bowel; from cancer of the cæcum; from phlegmonous inflammation connected with disease of the vertebræ; from renal calculus; from circumscribed peritonitis due to perforation of vermiform appendix; from right oöphoritis.

Treatment.—Complete rest in bed. Avoid active purgatives. If feverishness and tenderness are slight, *saline laxatives* (sulphate of magnesium, a teaspoonfu *in two ounces* of water every three hours) in small do

at frequent intervals; after free discharges have been obtained, the bowels must be kept locked by opium for a few days. Castor oil, fluid extract of senna, or calomel may be used to evacuate the bowels. If there is fever and much tenderness, patient must be kept perfectly free from pain by the use of opium. This treatment is continued until the bowels move spontaneously or the inflammation subsides. After the tenderness has subsided, a saline laxative, as above, or castor oil. For vomiting, the usual remedies. The diet must be liquid. Thirst may be quenched by small draughts of water or pellets of ice. In robust subjects, leeches (two to twenty) to the tender spot. Counter irritation, blisters (mustard, followed by turpentine stupes, etc.), or ice-bag. In severe cases, the laxatives may be supplemented by irrigation of the bowel with warm soap-suds; but great care is necessrry lest the bowel be ruptured. The possibility of ulceration and perforation should always be borne in mind when administering laxatives.

In the subacute and chronic cases, the tendency to constipation must be persistently corrected. Secure a free evacuation of the bowels daily, and for this purpose the compound licorice powder or Carlsbad salt may be used. In some cases, the wearing of an abdominal support is beneficial.

URÆMIA.

Definition.—A morbid condition due to accumulation and retention of the poisonous elements of the urine in the blood, especially urea.

Etiology.—Diseases of the kidneys; obstruction of both ureters; suppression of urine from any cause.

Symptoms.—An acute attack usually preceded by headache (bilateral and persistent); sense of weight across the forehead or at the vertex, vertigo, muscular twitchings, œdema in various parts of the body, and albuminous urine, to be followed by apoplectiform or epileptiform attacks (face pale; pupils regular and dilated usually) often in rapid succession (sometimes only a single convulsion occurs), with more or less stupor in the intervals; or there may be unusual drowsiness, heaviness, or mental confusion culminating in stupor or profound coma (rarely delirium).

There may be sudden temporary impairment of vision or blindness; occasionally impairment of hearing; frequently vomiting and diarrhœa (ammoniacal); sometimes a urinous or ammoniacal odor of the breath and perspiration; occasionally sudden and severe attacks of dyspnœa. Urine albuminous, and of a low specific gravity. The temperature may be above or below the normal. Gradual marked impairment of vision, due to retinal changes recognizable by the ophthalmoscope, may exist.

Complications.—Pulmonary œdema or œdema of the glottis may develop suddenly, and quickly kill the patient.

Differential Diagnosis.—From apoplexy; from epilepsy; from alcoholic intoxication; from opium or belladonna poisoning.

Treatment.—If there are symptoms indicating the approach of convulsions and coma, such as restlessness, twitchings, headache, etc., quiet the patient with hypodermic injections of morphine, administer half-ounce doses of the infusion of digitalis every four hours, combined or not with citrate or acetate of potassium, and unload the bowels, especially if there has been a tendency to constipation. Diaphoretics may be resorted to, such as hot-air or vapor baths, pilocarpine or jaborandi. Dry cupping, followed by moist heat, to the loins. During the convulsions, hypodermic injections of morphine may be given, or chloroform by inhalation. The latter is not so uniformly employed as it was a few years ago, and has given way to the morphine, at least in a certain proportion of cases, and this may be administered in ten-minim doses of Magendie's solution every two hours, and repeated oftener, if necessary, to control the muscular spasms. The most efficient cathartic is elaterium in fourth-grain doses every hour; it may be aided by croton oil if its action is not prompt. In the absence of both, calomel may be used. Pilocarpine has, in some cases, given rise to alarming symptoms when administered to patients who were unconscious.

VACCINIA.

Synonym.—Cow-pox.

Definition.—An acute contagious disease, originating from a specific virus, derived from cattle.

Etiology.—In the cow, it occurs as a natural malady

in man, it is only induced by direct inoculation of the matter from the cow or that conveyed from one individual to another.

Methods of Vaccination.—Fresh healthy humanized or bovine lymph should be selected from a primary characteristic vesicle, avoiding the admixture of blood. Dried lymph should be moistened with a drop of cold water just before the operation. The part usually selected for inoculation is over the insertion of the left deltoid muscle. One or more punctures or scratches are made, or the cuticle is abraded with the lancet, and the lymph applied. It is well to make two separate inoculations.

Phenomena following Vaccination.—In from three to five days, a small, hard, reddish, papular elevation appears over the point of inoculation, accompanied by slight itching and surrounded by an area of redness. The papule grows, and by the sixth or seventh day a distinct vesicle is formed with a depression at its centre. The vesicle from long-humanized virus continues to enlarge up to and during the eighth day; from bovine virus or humanized of few removes, it grows for several days longer. The areola appears on the eighth or ninth day, and continues to extend for a couple of days until it reaches a diameter of from one to three inches, accompanied with induration and swelling; sometimes small vesicles form upon it. It begins to fade on the tenth or eleventh day, the contents of the vesicle become opaque, it dries gradually, becoming brown in the centre, a hard reddish-brown scab being formed, which shrivels and falls off from the fifteenth to the thirtieth day, leaving a typical, depressed cicatrix, circular, white, about one-third inch in diameter, with minute pits over its base; sometimes exhibiting radiation from the centre. The appearances and course vary sometimes. In revaccination, the disease usually runs a more rapid and less regular course, and a diffused redness is liable to appear instead of the typical areola.

Symptoms.—Itching, heat, tension, and impaired mobility locally at the time of maturation. Occasionally, erythema or erysipelas; or the vesicle may slough. Axillary glands often enlarged and tender. No primary fever; symptomatic fever during maturation; temperature may reach 104° F. Irritability and restlessness; derangement of the alimentary canal. In rare cases, severe symptoms may

ensue in weakly children. A general rash may appear which seldom lasts over one week. Erysipelas and even septicæmia and pyæmia may occur.

Revaccination should be performed at least after puberty. Revaccination every five years and certainly whenever small-pox prevails is a good rule. The virus from a second vaccination should not be relied upon for use.

If vaccination has been satisfactorily performed, its protective power against small-pox is almost complete; should the latter disease, however, still be contracted, its virulence will be greatly modified. After exposure to small-pox, vaccination should be done *at once*, although there is a decided probability that it will suffice if done within three days inclusive.

Treatment.—Protect the arm from irritation, and prevent the vesicles being scratched. If there be much inflammation, wet lint, lead lotion, or dusting with starch powder. During pyrexia, keep patient indoors; give some mild aperient—a teaspoonful of castor oil. Be watchful for complications, especially after revaccination.

PRESCRIPTIONS.

℞ Ungt. stramon... ..... ℥i.
Sol. plumbi subacetatis.....gtt. xxx.
Olei lini..... .. .... ℥iv.
M. For severe burning and itching, applied on soft muslin.

℞ Acid. carbolic..... .. .. ʒi.
Aquæ.....O.i.
M. Lotion for excessive redness with burning and itching.

℞ Powdered starch,
Oxide of zinc, equal parts.
M. Dust the ulcerated surface (usually due to injury). May be used to check immoderate flow of lymph after pock has been opened.

℞ Plumbi acetat..... ʒi.
Aquæ..... ....O.i.
M. Lotion for irritable pock.
[Foster.]

VARICELLA.

Synonym.—Chicken-pox.

Definition.—A contagious eruptive disease, characterized by the appearance of vesicles in successive crops.

Etiology.—Mediate or immediate contagion (some writers state that it is feebly if at all contagious). Occurs almost exclusively *in children*; rarely occurs twice in the same *person. Cannot* be communicated by inoculation *May occur epidemically*. As a rule it occurs only once.

Symptoms.—*Incubation stage:* Usually lasts twelve days (may vary from ten to sixteen days). No symptoms.

Invasion stage: Is frequently absent; the first symptoms appearing with the succeeding stage. Otherwise there is slight pyrexia for twenty-four to thirty-six hours, headache, sometimes slight cough.

Eruption stage: Eruption occurs at the latest in twenty-four to thirty-six hours, first a few spots, fresh crops during four or five nights, often in considerable numbers. They may continue to appear for ten or twelve days.

The eruption is discrete (may be severely discrete), the vesicles are distinct, never confluent; appears first about the shoulders and over the chest, extends to the limbs and scalp, and ordinarily to a limited degree over the face. The eruption begins as bright-red spots (may be vesicular from the begining), slightly papular, soft, disappearing under pressure. After a few hours they become vesicular, sometimes bullous, round or oval, ill-defined, collapsing when punctured. No areola. After about twenty-four hours, the contents become opalescent; a faint-red areola appears. Each vesicle ruptures or dries from the third to the fifth day, a small crust extending rapidly from the centre to the periphery. The crust is generally thin and crumbly, rarely coherent; it separates in four or five days, leaving slight redness which soon disappears. Pitting is exceptional. As the vesicles appear in crops, they may be seen in various stages side by side. They are never umbilicated, and never become pustular. Vesicles may suppurate and form scabs if injured. They rarely leave permanent cicatrices.

General symptoms slight; little feverishness, occasionally high temperature during the night. Thirst, anorexia, constipation. Catarrh frequent, which may become dangerous if the bronchi be largely involved.

Differential Diagnosis.—From varioloid. (The view that it is a modified form of variola has not been substantiated.)

Treatment.—Isolation, confinement, simple mild diet; attention to bowels. Scratching should be prevented. Saline mixture if there be high fever. Quinia during convalescence. Complications treated according to indications.

WHOOPING COUGH.

Synonym.—Pertussis.

Definition.—A contagious disease, occurring chiefly in childhood, and characterized by a peculiar cough.

Etiology.—Contagion (through the breath chiefly) or infection. The nature of the poisonous principle is obscure. As a rule, it occurs only once. It occurs epidemically; may occur sporadically.

Predisposing causes: Childhood (may occur in adults and even old people, and in infancy); a cold or damp season or climate; exposure.

Symptoms.—The period of incubation is uncertain; is said to be about two to fourteen days.

First or catarrhal stage: Slight fever with evening exacerbation and morning remission: malaise and loss of appetite; catarrh—running from the nose, sneezing, redness of the eyes; frequent severe cough, dry at first, later attended by a peculiar expectoration. This stage may last from two days to two to three weeks or more (average ten to fifteen days), its duration and severity being an indication of the character of the attack.

Second or spasmodic stage: Is characterized by peculiar fits of spasmodic cough. Each paroxysm sets in abruptly, often preceded by tickling in the throat or some unpleasant feeling. The cough is severe and distressing, consisting of a number of quick, spasmodic, forcible loud expiratory puffs, alternating with prolonged, shrill inspiratory "whoops" (liable to be absent in youngest subjects); eyes swell and protrude; body bends forward; if the fit lasts long, the cough finally becomes almost inaudible, and it usually terminates with the expectoration of some tenacious, glairy mucus from the mouth, often also discharged through the nose; sometimes with vomiting. Indications of non-aëration of the blood, sometimes amounting almost to asphyxia. Temporary exhaustion with soreness of the muscles of the chest. There may also ensue: hemorrhage under the conjunctiva, from the nose, mouth, ears or rectum; involuntary discharge of urine and fæces; hernia or prolapsus ani; convulsions.

Physical Signs.—Ulceration about the frænum linguæ *(frequent), after* the second stage is established. Norm

resonance on percussion, with dry or moist bronchial râles.

The frequency and duration of the paroxysms vary greatly. During the intervals the patient may be apparently well or present symptoms of exhaustion, debility, loss of appetite, headache, sleeplessness, fever, etc., or of various complications. The disease usually reaches its height at the end of the third to the fifth week, then gradually subsides.

Third or stage of decline: Gradual diminution in the frequency and severity of the paroxysms. Sputa become opaque and muco-purulent; vomiting ceases; general health improves.

Complications and Sequelæ.—Existence indicated when the stage of decline is protracted. Bronchitis (may become capillary); lobular collapse; emphysema; rupture of air-vesicles; catarrhal pneumonia (usually in the second stage) the eruptive fevers; diphtheria; pleurisy; phthisis; acute tuberculosis; croup; convulsions; hydrocephalus; cerebral apoplexy; meningitis; hernia; gastritis or enteritis, with obstinate vomiting or diarrhœa, etc. Relapse is rare.

Differential Diagnosis. — From naso-pharyngeal catarrh; from bronchitis.

Treatment.—The patient should be kept in a warm room at first, wear flannel next to the skin; warm drinks. There is no specific treatment. The chief object is to prevent complications and relieve symptoms. An aperient: a mixture of liquor ammoniæ acetatis with vinum ipecac. Sedatives (second stage) and antispasmodics in minute doses, closely watched; tincture of belladonna, opium, codeia, syrup of poppy, or morphia; hydrocyanic acid, conium, hyoscyamus, tincture of lobelia, tincture of aconite root, cannabis indica, ether, chloroform, monobromate of camphor, valerian, asafœtida, musk; either of these may be combined with alkaline carbonates. Or, vinum ipecac with dilute hydrocyanic acid (♏ $\frac{1}{4}$–$\frac{1}{2}$) or with tincture of belladonna.

Other drugs recommended are: Alum, gr. i.–vi., every four hours; dilute mineral acids, especially nitric; cochineal; arsenic; tannic acid; ergot; nux vomica or strych-

tincture of myrrh; atropia (gr. $\frac{1}{1000}$–$\frac{1}{100}$ three times a day); repeated emetics; metallic salts (acetate of lead, gr. ¼–v.; also copper, zinc, iron, silver) in chronic cases. Inhalations (hand atomizer) of carbolic acid solution (1%). Quinine inhalations (½% solution) three times a day, or brushing the walls of the pharynx with a strong solution. Covering the bed with a tent soaked in 5% carbolic acid solution.

Local applications, such as counter-irritants, have been tried and appear of doubtful benefit.

Diet and hygiene should be carefully regulated; the patient should be in the fresh air if the weather is suitable.

Complications require prompt treatment. As a general rule, supporting measures are indicated.

During convalescence, tonics, especially iron and quinine, also wine. Change of air. Good diet.

PRESCRIPTIONS.

℞ Syr. scillæ comp. ..... ℥ i.
Tinct. aconiti rad ..... ♏ xvi.
Tinct. opii deod ..... ♏ viij.
Syr. tolu ..... ʒ vij.
Aquæ lauro-cerasi ..... ℥ i.
M. S. A teaspoonful every two, three, or four hours. For catarrhal symptoms.

℞ Cochineal ..... ℈ ss.
Potass. carbonat ..... ℈ i.
Sacchar. alb ..... ʒ i.
Aquæ destil ..... ℥ iv.
M. S. A dessertspoonful t. i. d. to a child one year old; dose increased according to age. In second stage.

℞ Chloral ..... ʒ ij.
Potass. bromid ..... ʒ iv.
Syrup prun. virg.,
Aquæ destil ..... āā ℥ i.
M. S. A teaspoonful t. i. d. to a child one year old. For severe attacks. Dose may be modified to suit other cases.

℞ Tinct. gelsemii ..... ♏ v.-x.
Take in dill water.

℞ Ammonii picrat ..... q. s.
Dose: infants, gr. 1/16–1/12; children, gr. 1/12–1/8; every three hours.

℞ Acid. carbolic ..... gtt. xxiv.
Aq. extract. opii ..... gr. v.
Glycerinæ ..... ℥ iij.
Aquæ ..... ℥ v.
M. For use with hand or steam atomizer.

℞ Ext. bellad. fl ..... gtt. vi.-xij.
Ammon. bromidi ..... ℈ i.
Potass. bromid ..... ℈ ij.
Aquæ destil ..... fl. ℥ ij.
For spray by steam atomizer three times a day for ten to fifteen minutes.

℞ Acidi carbolici ..... ʒ ss.
Potass. chlorat ..... ʒ ij.
Glycerinæ ..... ℥ ij.
Aquæ ..... ℥ vi.
For inhalation from steam atomizer three times a day for two to five minutes.

WORMS, INTESTINAL.

Synonym.—Helminthiasis.

Varieties.—Cestoda (tape-worms): Tænia solium, Tænia saginata or T. medio-canellata; Bothriocephalus latus. Nematoda (round worms): Ascaris lumbricoides, Oxyuris (Ascaris) vermicularis, Trichocephalus dispar, Anchylostomum duodenale.

A. Tape-worms.

Etiology.—Eating of raw or underdone meat containing the embryo (cysticerous cellulosus and others).

Symptoms (may be absent).—Segments of the worm pass occasionally (essential to diagnosis). Emaciation despite a good appetite; lassitude; colicky pains in different parts of the abdomen; palpitation of the heart; faintness; salivation; disordered digestion; pruritus of the anus and nose; feebleness of the organs of special sense; constipation alternating with diarrhœa; pains and cramps in the extremities; choreic and epileptiform attacks; hysteria, etc.

Treatment. — Preparatory: Sulphate of magnesium (ʒ i.–ij. in water) on two mornings preceding the exhibition of the tænifuge. Restricted diet. Actual: Decoction of pomegranate bark, ℥ iij. of bark, macerated twelve hours in ℥ xij. of water, then boiled down to ℥ vi., to be taken in three doses in an hour. It is best to add ethereal extract of filix mas ℈ i.–ʒ ss. and extract of tansy ʒ ij. to the decoction; ℥ ij. of castor oil are given the preceding evening. Or, tannate of pelletierine, gr. vi.–viij., taken fasting, followed by compound tincture of jalap, or castor oil, or sodium sulphate. Or, kousso, ʒ v.–viiss., best in the form of compressed gelatin-coated balls (vomiting to be checked by rest, ice, and counter-irritation); followed by ℥ i.–ij. of castor oil. Or, oleo-resin of male fern, ʒ iss., fasting, in capsules. Or, emulsion of fresh pumpkin seeds (℥ ij.). Also, turpentine and castor-oil, āā ℥ i.–ij.; or, kameela, ʒ i.–iij. repeated every three hours if necessary; or, petroleum, ♏ xx.–xxx.

B. Round Worms.

[redacted]

tincture of myrrh; atropia (gr. $\frac{1}{1000}$–$\frac{1}{100}$ three times a day); repeated emetics; metallic salts (acetate of lead, gr. $\frac{1}{4}$–v.; also copper, zinc, iron, silver) in chronic cases. Inhalations (hand atomizer) of carbolic acid solution (1%). Quinine inhalations (½% solution) three times a day, or brushing the walls of the pharynx with a strong solution. Covering the bed with a tent soaked in 5% carbolic acid solution.

Local applications, such as counter-irritants, have been tried and appear of doubtful benefit.

Diet and hygiene should be carefully regulated; the patient should be in the fresh air if the weather is suitable.

Complications require prompt treatment. As a general rule, supporting measures are indicated.

During convalescence, tonics, especially iron and quinine, also wine. Change of air. Good diet.

PRESCRIPTIONS.

℞ Syr. scillæ comp.,..... ℥ i.
Tinct. aconiti rad.....♏ xvi.
Tinct. opii deod .....♏ viij.
Syr. tolu..... ʒ vij.
Aquæ lauro-cerasi..... ℥ i.
M. S. A teaspoonful every two, three, or four hours. For catarrhal symptoms.

℞ Cochineal..... ... . ℈ ss.
Potass. carbonat.....℈ i.
Sacchar. alb..... ʒ i.
Aquæ destil.... . .....℥ iv.
M. S. A dessertspoonful t. i. d. to a child one year old; dose increased according to age. In second stage.

℞ Chloral..... ʒ ij.
Potass. bromid..... ʒ iv.
Syrup prun. virg.,
Aquæ destil.....āā ℥ i.
M. S. A teaspoonful t. i. d. to a child one year old. For severe attacks. Dose may be modified to suit other cases.

℞ Tinct. gelsemii.....♏ v.-x.
Take in dill water.

℞ Ammonii picrat .....q. s.
Dose: infants, gr. 1/16–1/12; children, gr. 1/12–1/8; every three hours.

℞ Acid. carbolic.....gtt. xxiv.
Aq. extract. opii .....gr. v.
Glycerinæ.... .... ℥ iij.
Aquæ.. ..... ℥ v.
M. For use with hand or steam atomizer.

℞ Ext. bellad. fl .....gtt. vi.-xij.
Ammon. bromidi.....℈ i.
Potass. bromid.....℈ ij.
Aquæ destil.... .....fl. ℥ ij.
For spray by steam atomizer three times a day for ten to fifteen minutes.

℞ Acidi carbolici..... ʒ ss.
Potass. chlorat..... ʒ ij.
Glycerinæ..... ℥ ij.
Aquæ .... ℥ vi.
For inhalation from steam atomizer three times a day for two to five minutes.

Symptoms (may be absent).—Colicky pains about the umbilicus; tumefaction of the abdomen; capricious appetite; occasional nausea and vomiting; offensive breath; sometimes diarrhœa, the stools containing mucus and blood; whey-like urine; pruritus of nose and anus; bluish coloration of lower eyelid; dilatation and inequality of the pupils; emaciation; irregular pulse; choreic and hysteric attacks; restlessness; grinding of teeth during sleep, etc. The diagnosis is uncertain until worms are passed.

Treatment.—Santonine, gr. iij. at night, followed by a purgative in the morning· or the same dose three or four times daily; santonine and calomel, āā gr. ij.-iv., preceded for two days by gtt. ij.-iij. of dilute hydrocyanic acid three times a day; oil of chenopodium, gtt. v.-x. in ℥ i. of castor oil; fluid extract of spigelia, ʒ i.-iv.; oil of turpentine.

C. Thread Worms.

Etiology.—Occur in the intestine as a consequence of the entry into the stomach of ripe eggs which have been furnished by some one who is suffering from the worm.

Symptoms.—Intolerable itching in the rectum, especially at night; severe pain; tenesmus; stools relaxed, fetid, coated with mucus, sometimes streaked with blood; epileptiform seizures; chorea; catalepsy; excitation of the sexual organs. The worms often migrate into the vagina, and excite a blennorrhoic discharge; rarely into the urethra. May live in the cæcum.

Treatment.—Vermifuges as for round worms; to be followed by irrigation of the bowel with an infusion of quassia or aloes, or carbolic acid, grs. xx. to the pint of water, or a solution of common salt. The same substances may also be used as a vaginal injection. Careful sponging of the perineal region with a one-per-cent solution of carbolic acid. This treatment must be repeated several times to exterminate the parasites. Soap injections with a long flexible tube are advantageous in obstinate cases.

WRITER'S CRAMP.

Synonyms.—Scrivener's palsy; mogigraphia; chorea scriptorum.

Definition.—An affection characterized by disorders of *co-ordination in the* performance of delicate and comple

motor acts. (The title is a misnomer, as piano and violin players, seamstresses, milkers, and others are similarly affected.)

Etiology.—Overstrain of the affected muscles. Some authorities incline to the opinion that the disease is essentially neuralgic. Some writers believe that fatigue is far from being one of its essential causes, but regard it as a purely functional disturbance.

Symptoms.—Fatigue, exhaustion, and dull aching pain; nervous, irritable feeling; general nervousness; trembling, unsteadiness, cramp, spasm, jumping, rigidity, contracture of muscles; powerlessness, helplessness; neuralgia; burning, stinging, prickling feeling; disinclination to write; slowness in writing; writing requires attention, the pen seems to need a firmer grasp; abnormal grasp of the fingers on the pen or pencil; control over the muscles becomes lost; the pencil may suddenly strike out in the wrong direction; the writing becomes irregular and illegible; if the use of the right hand be relinquished and the left employed instead, it frequently becomes similarly affected; spasms and cramps in the muscles occur occasionally when writing is attempted (may be an early, but usually late symptom); while all other motions can be executed without difficulty. It is never established suddenly.

Treatment.—Absolute and prolonged rest of the muscles is essential (in exceptional cases recovery has taken place without the observance of this rule); electricity and massage; hypodermic injections of atropia, Fowler's solution, strychnia; the phosphates; cod-liver oil; quinia. Spontaneous recovery from the writer's affection may occur, without rest, without treatment, other than change in manner of holding the pen or pencil, protecting the fingers with a glove, or using a large pen-holder, like cork, etc. Typewriter.

DRUGS USED BY SUBCUTANEOUS INJECTION.

Acid. hydrocyan. dil., ♏ vi.; Aquæ destil., ʒ i.; one ♏ = $\frac{1}{10}$ ♏. Dose, ♏ x. to xxx.

Aconit. rad. tinct., ♏ vi.; Aq. destil., ʒ i.; one ♏ = $\frac{1}{10}$ ♏. Dose, ♏ x. to xx.

Ammoniæ aq. fort., ♏ xx.; Aq. destil., ʒ ij.; one ♏ = $\frac{1}{6}$ ♏. Dose, ♏ xxx.

Apomorphiæ, gr. ss.; Aq. destil., ʒ i.; one ♏ = $\frac{1}{60}$ gr. Dose, ♏ vi. to x.

Arseniatis liq. sodii, ʒ ss.; Aq. destil., ʒ ss.; one ♏ = $\frac{1}{60}$ ♏. Dose, ♏ ij. to xxv.

Atropiæ sulph., gr. ij.; Aq. destil., ℥ i.; one ♏ = $\frac{1}{240}$ gr. Dose, ♏ iij. to x.

Caffeini, gr. x.; Aq. destil., ʒ i.; one ♏ = $\frac{1}{6}$ gr. Dose, ♏ v. to xx.

Chloroform. Dose ♏ v. to xv. (Irritating.)

Chloral hydratis, ʒ i.; Aq. destil., ʒ ij.; one ♏ = $\frac{1}{2}$ gr. Dose, ♏ x. to xxx.

Coneini, gr. $\frac{1}{4}$; Spiritus, ʒ ss.; Aq. destil., ʒ iss.; one ♏ = $\frac{1}{480}$ Dose, ♏ iij. to xij. (Must be freshly prepared.)

Curaræ (Woorara), gr. $\frac{1}{4}$; Aq. destil., ʒ iv.; one ♏ = $\frac{1}{960}$ gr. gr. Dose, ♏ v. to xv.

Digitalin, gr. ss.; Spiritus, aq. destil., āā ʒ i.; one ♏ = $\frac{1}{240}$ gr. Dose, ♏ v. to xv.

Ether, sulphuric, ♏ x. to xv.

Ergotæ fld. ext., ♏ v. to xx., or (preferably) the aqueous extract, ʒ i.; Aq. destil., ʒ iv. Dissolve and pour upon a wet filter, and rinse through until six fluid drachms are obtained; one ♏ = gr. i. Dose, ♏ v. to xx. or more.

Ergotin, gr. xx.; Aq. destil., ʒ ij.; one ♏ = $\frac{1}{6}$ gr. Dose, ♏ v. to xx.

Eserine muriate, gr. i.; Aq. destil., ℥ i.; one ♏ = $\frac{1}{480}$ gr. Dose, ♏ v. to x.

Hydrarg. chlorid. corros., gr. ij.; Aq. destil., ℥ i.; on ♏ = $\frac{1}{240}$ gr. Dose, ♏ v. to xxx.

Morphiæ sulphat., gr. xvi.; Acid. salicylic., gr. ss.; Aq. destil., ℥ i.; one ♏ = $\frac{1}{30}$. Dose, ♏ iij. to x. (Filter.)

Morphiæ sulph., gr. xvi. and *Atropiæ sulph.*, gr. ½. } Glyc., ʒ i.; Acid. salicylic., gr. ss.; Aq. destil., ʒ vij. (filter); one ♏ = $\frac{1}{30}$ gr. Dose, ♏ iv. to xij.

Physostigmæ (Calabar bean) *ext.*, gr. xvi.; Aq. destil., ℥ i.; one ♏ = $\frac{1}{30}$ gr. Dose, ♏ iv. to xij.

Physostigmia (Eserine muriat.)

Pilocarpin. mur. or *nit.*, grs. iij.; Aq. destil., ʒ iv.; one ♏ = $\frac{1}{80}$ gr. Dose, ♏ v. to xv.

Quiniæ bimuriat. carbamadata (hydrochlorate with urea), gr. xx.; Aq. destil., ʒ i.; one ♏ = ⅓ gr. Dose, ♏ vi. to xxx.

Quiniæ hydrobromat., gr. xxx.; Aq. destil., ʒ i.; one ♏ = ½ gr. Dose, ♏ x. to xxx.

Quiniæ sulphat., gr. xl.; Acid. sulph. dil., ♏ 100; Aq. font., ℥ i.; Acid. carbolic. liq., ♏ v. Place the quinine and water in a porcelain dish over a spirit lamp, heat to the boiling-point, and add the sulphuric acid, stirring with a wooden spatula. Filter at once into a bottle, and add the carbolic acid. This gives six grains to the drachm. It must be heated when the temperature is below fifty degrees (Lente).

Spiritus (brandy, whiskey), ♏ xx. to lx.

Strychniæ sulph., gr. i.; Aq. destil., ℥ ij.; one ♏ = $\frac{1}{250}$ gr. Dose, ♏ v. to xv.

DRUGS FOR ATOMIZATION AND INHALATION.

The following are the quantities to be mixed with one ounce of distilled water:

Acid. tannic., gr. ij.–xv.
Acid. sulphuric. dil., ♏ x.–xx.
Acid. carbolic. liq., ♏ v.–xv.
Acid. cresylic., gr. xv.–xxx.
Acid. lactic., gr. x.–xxx.
Acid. salicylic., gr. xv.–xxx.
Aluminis, gr. v.–xxv.
Ammon. muriat., gr. v.–x.
Aquæ amygdalæ amaræ, undiluted.
Aquæ calcis, full strength.
Aquæ menth. pip., ʒ i.–ij.
Argenti nitrat., gr. i.–x.
Arseniatis liq. sodii, ♏ v.–x.
Belladonnæ tinct., ♏ xv.–xxx.
Bromine, gr. i.; Iodide of potassium, ʒ i. Pour into a cone, and inhale fumes (diphtheria).
Cannabis indicæ unct. ♏ iij.–xv.
Cupri sulph., gr. i.–xv.
Ferri chloridi tinct., ♏ x.–xx.
Hamamelis tinct., ♏ xx.–xl.
Ipecac. fld. ext., ♏ x.–xx.
Morphiæ sulph. or acetat., gr. ss.–iss.
Opii deodorat. tinct., ♏ xv.–xxx.
Potass. chlorat., gr. v.–xx.
Potass. liquor., ♏ x.–xij.
Potass. permang., gr. i.–iij.
Picis liquidis infus. (aquæ picis), ʒ ij.–viij.
Sodii benzoat., gr. iij.–xv.
Sodii liquor, ♏ x.–xii.
Terebinth. ol., ♏ v.–x.
Zinc. sulph., gr. iij.–xv.

APPROXIMATE EQUIVALENTS OF SMALL WEIGHTS.

COMMON AND METRIC.

The following estimates and rules were taken from CHARLES RICE's Posological Tables:

GRAINS.		GRAMMES.	GRAINS.		GRAMMES.	GRAINS.		GRAMMES.
1	=	0.065.	$\frac{1}{8}$	=	0.008.	$\frac{1}{40}$	=	0.0016.
$\frac{3}{4}$	=	0.05.	$\frac{1}{10}$	=	0.006.	$\frac{1}{60}$	=	0.0011.
$\frac{1}{2}$	=	0.032.	$\frac{1}{12}$	=	0.005.	$\frac{1}{64}$	=	0.001.
$\frac{1}{3}$	=	0.02.	$\frac{1}{16}$	=	0.004.	$\frac{1}{100}$	=	0.0006.
$\frac{1}{4}$	=	0.016.	$\frac{1}{20}$	=	0.003.	$\frac{1}{120}$	=	0.0005.
$\frac{1}{5}$	=	0.013.	$\frac{1}{30}$	=	0.0022.			
$\frac{1}{6}$	=	0.01.	$\frac{1}{32}$	=	0.002.			

GRAINS.		GRAMMES.			GRAMMES.
1	=	0.065.	ʒ i.	=	4.00
5	=	0.32.	ʒ iv.	=	16.00
10	=	0.65.	℥ i.	=	32.00
20	=	1.29.			

"*Drachms* and *Troy Ounces* are approximately converted into *grammes* by multiplying the number of drachms by 4, and rounding off the product to figures ending in 0 or 5.

$\frac{1}{2}$ ʒ =2.00 gm. 1 ʒ =4.00 gm. 1½ ʒ =6.00 gm.
½ ℥ (= 4 ʒ) = 16.00 gm. 1 ℥ (= 8 ʒ) = 32.00 gm.

The same rule may be applied to convert *fluid-drachms* and *fluid-ounces* into *cubic centimetres.*

½ fl. ℥ (or 4 ℥) = 16 cubic centimetres (16.66).

Grains are converted approximately into centigrammes by multiplying them with 6, and rounding off the product to figures ending in 0 or 5.

Centigrammes are written exactly like cents in American money: 0.75 = 75 centigrammes. 9.75 = 9 grammes and 75 centigrammes.

3 grains: 3x6 = 18: rounded off: 20 centigrammes, or 0.20 gm.

4 grains: 4x6 = 24; rounded off: 25 centigrammes, or 0.25 gm.

The same rule may be applied to convert *minims* into *cubic centimetres*; but the product must be divided by 100, or the decimal point moved two places to the left:

20 ♏ (or 20x6) = 120 = 1.20 cc.
5 ♏ (or 5x6) = 30 = 0.30 cc.

Rule for Adjusting the Doses for Children under Twelve Years. (Young.)

Rule:—Divide the age by the age increased by 12; the quotient expresses the fraction of an adult dose.

Example:—The dose for an adult being 1 (drachm, or grain, etc.), what is the dose for a child three years of age?

$\frac{3}{3+12} = \frac{3}{15} = \frac{1}{5}$. Answer: $\frac{1}{5}$ (of a drachm or grain, etc.).

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ADDENDA.

THE prescriptions given in this book call for preparations made according to the U. S. Pharmacopœia for 1870. It was found impracticable, in this edition, to make the quantities correspond to the U. S. Pharmacopœia just issued.

CONGESTION, PULMONARY (see p. 46).—Withdrawal of blood (using a fine needle) from the right auricle with a hypodermic syringe or aspirator (?). This has been tried for the relief of the intense congestion of the right side of the heart in pneumonia, for example (?). (The method consists in introducing a thoroughly clean warm needle through the third intercostal space close to the edge of the sternum into the right auricle, and attaching an aspirator or using a syringe.)

DIABETES MELLITUS (see p. 57).—Coma or sudden death occurs in a proportion of cases of diabetes. The prevailing theory has been that these phenomena have been caused by acetone, developing the condition known as acetonæmia. Objection has recently been raised to this theory, and the view has been offered that the coma or sudden death in these cases depends primarily upon glycogenic degeneration of the tubules of the kidney (said to be constant), and analogous change in the liver, heart, and other organs.

In exceptional cases, the urine may have a low specific gravity, but this is most likely to occur in transient glycosuria.

GLOMERULO-NEPHRITIS (see p. 151).—An able observer has recently expressed the opinion that so-called glomerulo-nephritis is not a distinct form of kidney disease.

GOUT (see p. 109).—A new theory has been advanced concerning the etiology of this affection. Ebstein claims that the primary lesion is localized death of tissue, necrotic foci, and that the deposit of the urates is secondary.

KIDNEY, BRIGHT'S DISEASES OF (see p. 144).—One remedy deserves special mention. Case: patient fifty-five years c

age; had always been well up to one year ago, when she noticed that the quantity of urine passed was, on some days, more than usual, and this continued, attended with some pain in the back, until her children noticed that her face was swollen under the eyes. This was soon followed by swelling of the feet and difficulty of breathing, and when her family physician was called he found evidence of œdema of the lungs. The urine was loaded with albumen, had a specific gravity of 1012, and contained casts of all varieties in very great abundance. Free action of elaterium was secured. *Nitro-glycerin* was then given, *one drop, three times a day, of a one-per-cent solution.* At the end of two days, only a trace of albumen existed in the urine, the specific gravity was 1017, and the number of casts was exceedingly small. The effect of this remedy is, as a rule, produced at once. It seems to be especially serviceable in cases with a clinical history similar to that given above. The remedy may be used in all forms of Bright's disease.

SCARLATINA (see p. 240).—There are well-established exceptions to the generally accepted view that this disease is not contagious during the first few hours.

The view has recently been advanced that diphtheria may occur as a complication of scarlet-fever. It has also been held that scarlet-fever is a cause of diphtheria, especially when it occurs in localities in which diphtheria exists or has recently prevailed.

These questions are still under consideration.

TUBERCULOSIS. ACUTE MILIARY (see p. 217).—A general disease characterized by marked constitutional disturbance, elevation of temperature, and increased frequency of respiration and pulse. It runs a rapid course, and terminates fatally. Physical examination of the chest is essentially negative, and this fact sometimes affords efficient aid in diagnosis. Cough is present in a great majority of cases; some authors say it is a constant symptom. Expectoration is rarely wanting. Progressively increasing prostration is a marked feature of the affection. It is most liable to be confounded with typhoid fever.

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